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ABSTRACT

This 25th annual NEA survey of public school teacher supply and demand estimates that the supply of qualified teachers is generally adequate, although shortages exist in some areas. To supplement these estimates, surveys were made in State departments of education and in 71 of the country's 80 largest school systems. Shortages occurred in industrial arts, special education, trade-industrial-vocational courses, mathematics, remedial reading, speech, and in distributive education. Assignments most frequently reported by the large school systems as having an oversupply of qualified applicants include social studies, Language Arts, physical and health education (male teachers), elementary level, foreign languages, art, business education, and home economics. Tables present comparative data by State and by subject area. A related document is EA 004 438. (MLF)

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Teacher Supply and Demand in Public Schools, 1972

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EA 004 704

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FOREWORD

THE NEA RESEARCH DIVISION constantly endeavors to improve the research techniques, the accuracy of data, and the usefulness of its reports. This 25th annual survey of the supply and demand for public-school teachers continues this tradition.

Continuing the changes initiated in the 1966 edition, the 1972 report provides two estimates of the demand for new teachers: one based on achievement of minimum quality in educational staffing, and one based on trends toward improvement in the quality of the teaching staff. Also, the present study continues the estimation of the demand for beginning teachers as a subgroup of the demand for new teachers.

Users of this report should interpret the estimates only in general terms because additional study is needed on (a) the factors influencing personal decisions on entering, interrupting, re-entering, and leaving the teaching profession; (b) the characteristics of potential teachers and the assignments given to new teachers; and (c) the influence of financial support for continued improvement in education upon the components of teacher supply and demand.

This report contains a summary of teacher supply and demand conditions reported in late summer 1972 by respondents in state departments of education and in 71 of the country's 80 largest school systems. These two special surveys were designed to supplement the national estimates, to identify the status of teacher supply and demand in various types of school systems, and to review the conditions influencing teacher supply and demand in late summer 1972. The results of these inquiries are given on pages 6-8 of this report. A preliminary summary of data contained in this report was released in early October 1972.

The NEA Research Division appreciates the invaluable assistance of the personnel in state departments of education and teacher preparation institutions who participated in this study. Their willingness to gather and provide basic data and their continuing interest in this important facet of professional analysis and planning make this report possible. The Division also wishes to thank the state and local school officials who so willingly responded to the supplemental inquiries on the shortage of teachers.

This report was prepared by William S. Graybeal, Assistant Director, with the assistance of the Statistics Section of the Research Division.

GLEN ROBINSON
Director, Research Division

HIGHLIGHTS

- A record 337,619 persons completed teacher preparation programs with at least a bachelor's degree between September 1971 and August 31, 1972, an increase of 3.4 percent over the number reported for the previous year.

- The estimated number of new teachers needed to attain minimum levels of quality staffing (Quality Criterion Estimate of teacher demand) in 1972 comprises 526,400 in elementary schools and 441,700 in secondary schools, a total of 968,100.

- The number of new teachers needed in 1972-73, as projected from trends in the improvement of staffing characteristics in recent years (Adjusted Trend Criterion Estimate), comprises 88,200 in elementary schools and 108,800 in secondary schools, a total of 197,000.

- The Quality Criterion Estimate of demand exceeds the expected supply of new teachers by 660,000, provided the turnover and re-entry rates of qualified experienced teachers approximates that of recent years. This shortage comprises 378,200 teachers at the elementary-school level and 281,800 at the secondary-school level.

- Based on the Adjusted Trend Criterion Estimate of demand, with allowance for the re-entry of qualified experienced teachers as in 1971-72, the supply is generally adequate, but some shortages of beginning teachers are expected to continue in secondary-school mathematics, vocational-technical courses, sciences, and industrial arts.

- Two special surveys of appropriate officials in state departments of education and in 71 of the largest school systems in late summer 1972 show that as a whole the supply is adequate but shortages of qualified teachers are continuing in special education and in all of the assignments listed above.

- The supply of qualified former teachers desiring to re-enter teaching in fall 1972 (83,400 persons) is 18,500 to 29,400 larger than the number of positions estimated to be open to them.

SPECIAL SURVEYS OF TEACHER SUPPLY AND DEMAND

TWO SPECIAL SURVEYS were conducted in midsummer 1972 to obtain up-to-date information about (a) the direction of change, if any, in the factors which influence the supply and demand for public-school teachers; (b) the general status of supply-demand conditions in the states and major school systems; (c) the subject areas in which shortages seem to be most widespread; and (d) conditions in the fall of 1972 as compared with one year earlier. This information provides a framework for interpreting the projections of teacher supply and demand in the regular study.

One survey was directed to the person having responsibility for teacher education and certification in each state department of education. These persons were asked to report their *general impression* of teacher supply and demand conditions in their state as of the last week in July. The second survey was sent to the 80 largest school systems (these systems enroll 50,000 or more pupils, and as a group employ one-fifth of all public-school teachers). Personnel directors in these systems were asked to report by each major assignment area: (a) the adequacy of the supply of qualified teacher applicants in their school systems for 1972-73, (b) whether they have had to employ persons with substandard qualifications, and (c) the number of unfilled positions in the last week of July 1972.

General Conditions Reported by States

State department of education officials in 47 states reported the general condition of public-school teacher supply and demand this summer. Their assessment of how the total number of qualified applicants compares with the number of teaching position vacancies in late July 1972 was as follows:

- 1 state—some shortage of applicants
- 20 states—shortage of applicants in some subject areas and an excess in others
- 9 states—some excess of applicants
- 15 states—substantial excess of applicants.

The remaining three states did not have sufficient information readily available to allow a valid appraisal of conditions as of the last week in July.

Last year half of the 48 reporting states indicated a general excess of applicants and the remaining states indicated a combination of surplus in some assignments with a shortage in some assignments. The situation regarding qualified teacher applicants in late July 1972 compared with 1971 was reported by 11 states as being *about the same*, and by 26 states as being a *larger excess*. Four states reported a *much larger excess* than one year ago. Nine states did not have sufficient information

TABLE 1.—GENERAL CONDITION OF TEACHER SUPPLY AND DEMAND AS REPORTED BY STATE DEPARTMENTS OF EDUCATION PERSONNEL, 1966-1972

General condition of teacher supply and demand	Number of states reporting condition as of fall						
	1966	1967	1968	1969	1970	1971	1972
1	2	3	4	5	6	7	8
Substantial shortage of applicants	20	19	5	2	0	0	0
Some shortage of applicants	11	14	17	12	2	0	1
Shortage of applicants in some subject areas and excess in others	8	11	19	32	35	24	20
Sufficient applicants to fill positions	0	1	1	1	7	0	2
Some excess of applicants	0	0	0	2	1	11	9
Substantial excess of applicants	0	0	0	0	4	13	15
Valid appraisal not possible with present information	11	5	8	1	1	2	3

to report. Table 1 shows the 6-year trend in the alleviation of general shortages.

Some Conditions Influencing Teacher Demand

Responses from states and large school systems show a mixed national pattern in the fall 1972 trend in provisions for school staffing. An estimate of conditions within the state was given by respondents in 20 states which enroll about 40.4 percent of all public-school pupils. An estimate of conditions within the school system was given by 63 school systems which enrolled 94.2 percent of all pupils in the 71 large school systems participating in the survey. The following shows the percents of pupils affected by each of the school staffing conditions this fall:

Situation in 1972-73 compared with trends of the 1967 to 1969 period	Percent of pupils affected	
	20 states	63 large systems
Number of new teaching positions reflects a normal trend toward improved staffing and programs	40.6	47.8
The improved teacher supply is being used to accelerate progress beyond the normal rate of annual improvements in school staffing and programs	14.7	5.6
Financial conditions are slowing, arresting, or reversing normal progress toward improved school programs and staffing	44.6	46.6
Total	100.0	100.0

Reports from states and from large school systems show a change in the proportions of teachers leaving their positions last year; this, in turn, creates fewer than normal numbers of vacancies to be filled by experienced or beginning teachers. The percentage of last year's teaching staff leaving full-time teaching for personal reasons, maternity, or employment outside education this fall compared with one year earlier is reported to be lower in 14 states, about the same in 16 states, and higher in one state. The remaining 19 states did not have sufficient information to offer an estimate of this condition. The respondents in 70 of the large school systems reported the extent of this type of termination compared with one year ago as follows: lower this year, 33 systems; about the same, 32 systems; and higher this year, 5 systems.

Conditions by Population Areas

Respondents in 46 states were able to report conditions by population areas in their state. One reported having an extremely low supply of applicants in rural areas and none reported this condition for small cities, central cities of large urban centers, or suburban areas. An oversupply was reported in central cities by 18 states, in suburban areas by 30 states, in small cities by 16 states, and in rural areas by 3 states.

The second survey queried personnel officers in each of the nation's 80 largest school systems about teacher supply and demand conditions in their systems as of the last week in July. Seventy-one systems reported a total of 820 unfilled positions. The unfilled positions represented 0.17 percent of the teachers in these systems in fall 1972.

The following shows the trend toward improvement in the supply of teachers in the reporting large school systems:

Year	Number of systems reporting	Number of positions open in late July	Percent of total teaching positions represented by vacant positions
1967	57	7,843	2.4
1968	76	5,482	1.6
1969	76	4,013	1.0
1970	67	2,314	0.6
1971	66	1,420	0.4
1972	71	820	0.2

Another indicator of the trend toward an enlarging surplus of qualified teacher applicants is the report from 61 large school systems that they have an average of nine qualified teacher applicants for each open position this year compared with an average of seven such applicants for each open position last year.

Conditions by Teaching Assignment Area

State department of education personnel report either a *low supply* or an *extremely* low supply of qualified teacher applicants in their school systems for 1972-73 in the following assignments (most frequently listed by 46 states reporting this information): special education, 30 states; trade, industrial, vocational, technical, 27 states; industrial arts, 24 states; special assignments in remedial reading, speech correction, etc., 23 states; special assignments directed to educationally disadvantaged children, 23 states; librarians, 15 states; and, mathematics, 14 states. The most frequently listed assignment areas in which the 46 states expect that school systems generally will have to employ persons with substandard qualifications are special education, 9 states; remedial reading, speech correction, etc., 5 states; industrial arts, 4 states; and, trade, industrial, vocational, 3 states.

Assignments most frequently reported as having an oversupply of qualified applicants were social studies, 39 states; English language arts, 34

states; men teachers of health and physical education, 33 states; elementary-school teachers, 26 states; foreign languages, 18 states; women teachers of health and physical education, 16 states; home economics, 15 states; business education, 14 states; and art, 13 states.

The assignments identified in the annual national survey as having a relatively low supply of qualified teachers are also reported as being in low supply by significant numbers of large school systems. The most frequently identified assignments for which these 71 school systems report having an *extremely low supply* or a *low supply* of qualified applicants in late July are as follows:

Assignment	Number of large systems having: An extremely low supply of applicants	A low supply of applicants	Number of positions not filled in late July 1972 in the large school systems
Industrial arts	19	27	94
Special education	3	22	181
Trade, industrial, vocational	11	31	37
Mathematics	5	21	34
Remedial reading, speech, etc.	5	17	28
Distributive education	7	14	9

Supporting these reports of low supplies are the numbers of these 71 large school systems which reported they have had to employ persons with substandard qualifications in these assignment areas for 1972-73: 6, industrial arts; 6, special education; 1, mathematics; 4, trade-industrial-vocational-technical courses; and 3, distributive education.

Assignments most frequently reported by the large school systems as having an oversupply of qualified applicants include social studies, 67; English language arts, 60; men teachers of physical and health education, 52; elementary-school teachers, 53; foreign languages, 42; art, 33; business education, 30; and home economics, 28.

Some Outcomes of the Teacher Oversupply

Use of the improved adequacy of the supply of beginning teachers to improve the quality of staffing is reported widely. The percentage of new teachers hired for this fall who have higher qualifications than the minimum requirement for certification is reported to be higher than last year by 14 states, about the same as last year by 14 states, and lower than last year by 3 states. The remaining 19 states did not have sufficient information to offer an estimate. Thirty-eight of the 69 large school systems responding to this question reported having a higher percentage of well-qualified new teachers this year; 29 reported the percentage to be about the same as one year earlier; and 2 reported the percentage to be lower than one year ago.

However, lower teacher mobility is indicated by responses from the states and the large school systems. Compared with one year ago, the percentage of last year's teaching staff who were leaving to teach in another school system this year was reported to be lower this year by 15 states, about the same by 13 states, and higher this year by 2 states. The remaining 20 states did not have sufficient data for an estimate. Among the 70 large school systems responding to this question, the percentage is lower this year in 43 systems, about the same in 24 systems, and higher this year in 3 systems.

Evidence from the large school systems supports a conclusion that employment of transferring teachers this year may be at lower rates than in previous years. Among the 69 large school systems responding, 18 reported the percentage of new teachers transferring to their school system from a teaching position elsewhere last year is lower than the percentage observed one year ago, 49 reported it to be about the same, and 2 reported it to be higher this year.

Interruption of a teaching career to return for advanced studies may be at lower than normal levels this year. The percentage of last year's teaching staff who are leaving full-time teaching to enter or return to advanced studies this fall (exclusive of those on sabbatical leave) is reported to be lower than one year earlier by 9 states and about the same as one year ago by 20 states; one state reported it to be higher than one year ago. The remaining 20 states did not have sufficient data to provide an estimate of this factor. Among the 70 large school systems responding to this question 23 reported the percentage to be lower this year, 42 reported it as about the same, and 5 reported it to be higher this year.

THE SUPPLY OF NEW TEACHERS

MOST OF THE qualified new teachers are supplied from the following sources: (a) graduates currently completing teacher education programs, (b) former teachers currently interested in re-entering classroom teaching, and (c) teacher education graduates of previous years currently interested in entering the profession for the first time. The major objective of this study is to estimate the supply and demand conditions pertaining to the new supply of graduates completing preparation to enter teaching. The supply of new teachers from other sources is difficult to estimate because little is known about the numbers of people which may be involved, and about the factors influencing them when they apply for active employment in public-school teaching.

Supply of Beginning Teachers

The summary in Table 2 shows there are expected to be 127,088 prospective elementary-school teachers and 182,715 prospective secondary-school teachers who will be completing their preparation with at least a bachelor's degree in time for entry into the teaching profession at the beginning of the 1972-73 session. Also, 14,296 prospective teachers of special education at either level are expected to be completing their professional preparation. The ungraded classifications listed in Table 2 are used for the sixth time this year, and as a result, may not have elicited complete reporting; many institutions may not have had data readily available in these classifications and the questionnaire may not have been sent to some institutions which prepare persons for these positions.

A review of trends in the supply of persons completing their preparation for teaching is provided by Table 3 and Figure I. To provide data groupings comparable with the earlier studies in this series, the numbers of persons completing preparation in selected subject fields for assignment in elementary schools or for special education, and library science, have been regrouped with the high-school subjects. The summary shows continuing growth in the numbers of persons being prepared for elementary- and high-school assignments. With 1950 as a base, the first year for which complete data are available, the percentages show the general pattern of growth in the supply of college graduates prepared to teach in elementary schools and in the high-school subjects. The table shows that the total number of persons receiving a bachelor's or first professional degree was below the 1950 level through 1960, approached the 1950 level in 1961-62, and has exceeded the 1950 level since 1962. A similar general pattern of lower annual new supply during the 1950-1959 period followed by greater supply since 1962 is observed among the number of persons being prepared to teach in high schools. The number being prepared to teach in elementary schools has been consistently greater than the 1950 level, more than twice as many being graduated each year between 1962 and 1967, more than three times as many in 1968 and 1969,

Year	Teacher education graduates as percent of total bachelor's and first professional degree class		
	Elementary school	Secondary school	Total
1950	6.6	20.1	26.7
1952	11.4	18.6	30.0
1954	12.6	16.8	29.4
1956	13.2	18.3	31.5
1958	12.5	19.0	31.5
1960	13.5	19.9	33.5
1962	14.0	20.4	34.4
1964	14.7	20.5	35.2
1965	14.7	21.2	35.9
1966*	14.1	22.2	36.3
1967*[a]	13.0	20.6	33.6
1968*	13.7	21.5	35.2
1969*	13.6	21.3	34.8
1970*	13.2	21.4	34.6
1971*	14.0	21.9	36.0
1972 est*	13.7	22.4	36.1

*Persons completing preparation to teach specific subjects are grouped within secondary-school category as in earlier studies of this series. Total does not include the graduates prepared to enter supporting ungraded positions.

[a]A few institutions in two states did not respond in 1968.

and four times as many in 1972 as were being prepared in 1950.

The percentages of graduates receiving the bachelor's or first professional degree represented by persons completing teacher education programs suggest that teacher preparation attracted an increasing proportion of persons enrolled in higher education until 1966, but the proportion has held near the 1966 level through 1972. These classifications are not entirely comparable because the number of teacher education graduates includes persons completing the master's degree and the basis for counting graduates with the first professional degree changed in 1966. Summarized on page 9 are the percentages of the total number of baccalaureate and first professional degree graduates represented by the graduates who have completed teacher education programs, biennially since 1950.

Among the high-school subject areas the numbers of new teacher education graduates are expected to exceed 1950 levels in all areas except agriculture. The current status is a marked change from the 1952 through 1958 period in which the number of new high-school teachers being graduated was lower than the 1950 levels in all areas except "other fields."

Table 3 (page 14) should be interpreted with consideration given to the following: (a) The base year, 1950, contained the crest of the wave of returning World War II veterans who completed their college degree. (b) The supply of new teacher education graduates in 1950 was not in balance with the demand for new teachers. (c) The impact of the increase in demand for public-school teachers for the flood of enlarged public-school enrollments was yet to be felt. It reached the first grade beginning in 1952-53.

The supply of prospective teachers in each state is summarized in Tables 4, 5, and 6 showing the numbers completing their preparation grouped by sex, degree, and the instructional level for which they have been prepared. As may be expected from differences in population, there are wide differences among the states in the numbers of persons being prepared for teaching.

Occupation of Teacher Education Graduates in 1971

Typically many persons completing teacher education programs do not enter teaching positions during the subsequent year, even in a time of shortage. The occupational status of the teacher education graduates of 1971 is shown in Table 7. As a whole, follow-up information has been reported for 82.5 percent of the prospective elementary-school teachers and for 81.8 percent of the prospective secondary-school teachers who were graduated in 1971. Information is not available from California, Kentucky, and Tennessee. Data for less than 85 percent of the teacher education graduates of 1971 are available for Alabama (elementary), Alaska (secondary), Arkansas (elementary), District of Columbia, Georgia (secondary), Indiana, Kansas (secondary), Maine, Massachusetts, Michigan, Minnesota (elementary), Missouri, Nevada (secondary), New Hampshire, New Jersey (secondary), New Mexico, Oklahoma, South Carolina (secondary), and Vermont (secondary). Information in column 11 shows that the status of 22.9 percent of the teacher education graduates is not known by these reporting institutions. This suggests that the percentage entries in at least one of the other columns are lower than would be observed if follow-up information were available for all graduates.

The fields of preparation from which highest percentages of graduates entered teaching immediately following graduation include junior high-school subjects, elementary-school music, special education, industrial arts, mathematics, elementary art, and elementary regular instruction. Areas of preparation in which lowest percentages of graduates entered teaching immediately following graduation include speech and drama, journalism, social studies, and trade-industrial-vocational (entry rate in each of these is less than 40.0 percent).

The percentages of graduates entering teaching biennially since 1954 by major areas of preparation are reviewed in Table 8. A continuing annual moderation in the percentage entering teaching noted since 1962 is generally observed among the fields. Each of these estimates may reflect minimum levels of entry because they may be increased by the possible entry of persons in the group of approximately 12 percent for whom no follow-up information is available. The data in this summary show that the proportions observed in the early 1960's may provide a planning estimate of the net or effective supply of beginning teachers available for employment in 1972-73.

The estimated supply of graduates who would be available for employment if positions were available in fall 1972 is provided in Table 9. The rate of entry estimated for graduates prepared to teach at the elementary school level (83.3 percent) was reported for 1958, a year in which entry rates were near their peak and follow-up information was reported for a very high proportion of teacher education graduates. The rate of entry similarly estimated for graduates prepared to teach in secondary schools (69.2 percent) was reported for 1962.

These rates are different from the 83.2 percent entry rate for elementary and the 75.0 percent entry rate for secondary used in the 1970 edition of this series. For a specific subject in high-school teaching the currently estimated supply (69.2 percent) is likely to be conservative because subjects in short-supply typically have attracted a higher than average proportion of graduates.

The Supply of Qualified Former Teachers

Some of the teachers who leave their positions may be expected to return to the profession. In addition to many teachers on leaves of absence, a significant number return to the classroom after varied lengths of interruptions.

The pool of elementary- or secondary-school teachers who had completed at least four years of college and were unemployed in 1960 was estimated by the U.S. Bureau of the Census to comprise about 304,460 persons. Problems in definition of *teacher*, particularly in the vocational fields, by the census enumerators make this a very general estimate. An assumption that this pool contains the 20-year accumulation of 1.5 percent of the teachers employed each year suggests that this pool contained 455,700 persons in fall 1972.

The 55,800 teachers estimated to have reentered teaching in fall 1960 represented 18.3 percent of the pool of unemployed teachers that year. The supply of experienced teachers available for re-entry in fall 1972 based on this rate would be 83,400 persons. The annual numbers available for re-entry from this source of supply will increase by more than 2,000 each year, 1971 to 1980.

TABLE 2A. -- COLLEGE STUDENTS COMPLETING BACHELOR'S DEGREE, 1972 AND 1971, BY FIELD

LINE NO	TYPE OF PREPARATION	1972 MEN	1972 WOMEN	1972 TOTAL	1971 MEN	1971 WOMEN	1971 TOTAL	1971 TO 1972 NET CHANGE	1971 TO 1972 PERCENT CHANGE
1	2	3	4	5	6	7	8	9	10
	ELEMENTARY-SCHOOL TOTAL	11,988	97,106	111,030	11,137	98,350	111,307	- 277	- .2
1	REGULAR INSTRUCTION	11,029	96,957	107,883	10,198	96,035	106,023	- 140	- .1
	SELECTED SUBJECTS(TOTAL)	959	2,149	3,147	939	2,315	3,284	- 137	- 4.2
2	ART	161	674	839	131	694	832	+ 7	+ .8
3	FOREIGN LANGUAGES	40	233	277	35	273	311	- 34	- 10.9
4	MUSIC	278	654	946	296	774	1,090	- 144	- 13.2
5	PHYSICAL & HEALTH EDUCATION ...	480	588	1,085	477	574	1,051	+ 34	+ 3.2
	SECONDARY SCHOOL								
6	AGRICULTURE	1,518	45	1,566	1,548	45	1,596	- 30	- 1.9
7	ART	2,345	5,814	8,268	2,036	5,242	7,405	+ 863	+ 11.7
8	BUSINESS EDUCATION	2,717	6,875	9,737	2,639	6,511	9,289	+ 448	+ 4.8
9	DISTRIBUTIVE EDUCATION	484	272	837	403	284	731	+ 106	+ 14.5
	ENGLISH LANGUAGE ARTS(TOTAL)	7,131	21,892	29,567	6,687	21,568	28,784	+ 783	+ 2.7
10	ENGLISH	5,503	18,427	24,392	5,259	18,427	24,158	+ 234	+ 1.0
11	JOURNALISM	145	400	547	134	369	504	+ 43	+ 8.5
12	SPEECH AND DRAMATIC ARTS	1,483	3,065	4,628	1,294	2,772	4,122	+ 506	+ 12.3
	FOREIGN LANGUAGES(TOTAL)	1,653	6,558	8,459	1,378	6,667	8,306	+ 153	+ 1.8
13	FRENCH	440	2,802	3,295	387	2,889	3,381	- 86	- 2.5
14	GERMAN	259	714	982	247	730	998	- 16	- 1.6
15	LATIN	37	159	204	57	163	244	- 40	- 16.4
16	RUSSIAN	40	92	133	30	90	123	+ 10	+ 8.1
17	SPANISH	827	2,666	3,589	614	2,634	3,331	+ 258	+ 7.7
18	OTHER	50	125	256	43	161	229	+ 27	+ 11.8
19	HOME ECONOMICS	20	7,846	8,091	3	7,773	7,984	+ 107	+ 1.3
20	INDUSTRIAL ARTS	5,031	147	5,427	4,628	67	4,893	+ 534	+ 10.9
21	JUNIOR HIGH SCHOOL(GENERAL)	222	429	652	267	370	639	+ 13	+ 2.0
22	MATHEMATICS	4,936	5,785	10,944	4,763	5,591	10,565	+ 379	+ 3.6
23	MUSIC	3,328	4,399	7,873	2,972	4,166	7,252	+ 621	+ 8.6
24	PHYSICAL & HEALTH EDUCATION	14,329	9,170	23,872	12,114	8,337	20,670	+ 3,202	+ 15.5
	NATURAL & PHYSICAL SCIENCES (TOTAL)	6,491	4,186	10,925	6,085	4,007	10,[illegible]8	+ 587	+ 5.7
25	SUBJECT NOT SPECIFIED	1,074	758	1,880	929	710	1,732	+ 148	+ 8.5
26	GENERAL SCIENCE	798	444	1,273	794	401	1,242	+ 31	+ 2.5
27	BIOLOGY	3,228	2,437	5,761	3,056	2,365	5,482	+ 279	+ 5.1
28	CHEMISTRY	855	427	1,328	811	435	1,269	+ 59	+ 4.6
29	PHYSICS	536	120	683	405	96	613	+ 70	+ 11.4
	SOCIAL STUDIES(TOTAL)	20,041	13,859	34,508	19,598	13,578	33,6[illegible]	+ 810	+ 2.4
30	SUBJECT NOT SPECIFIED	8,841	5,923	15,171	8,853	6,034	15,298	- 127	- .8
31	HISTORY, GEOGRAPHY	7,349	4,829	12,261	7,422	4,882	12,400	- 139	- 1.1
32	ECONOMICS, SOCIOLOGY, PSYCHOLOGY	2,115	2,002	4,187	1,695	1,688	3,387	+ 800	+ 23.6
33	OTHER SOCIAL STUDIES	1,736	1,105	2,889	1,628	974	2,613	+ 276	+ 10.6
34	TRADE, INDUSTRY, TECHNOLOGY	725	19	771	687	58	762	+ 9	+ 1.2
35	OTHER SECONDARY SUBJECTS	500	727	1,319	535	712	1,328	- 9	- .7
	SECONDARY-SCHOOL TOTAL	71,471	88,023	162,816	66,343	84,976	154,240	+ 8,576	+ 5.6
	UNGRADED								
36	SPECIAL EDUCATION	1,649	8,703	10,676	1,164	7,523	8,920	+ 1,756	+ 19.7
37	LIBRARIAN	105	956	1,064	92	1,007	1,099	- 35	- 3.2
38	GUIDANCE COUNSELOR	116	161	289	101	135	248	+ 41	+ 16.5
39	SCHOOL PSYCHOLOGIST	61	92	155	45	50	95	+ 60	+ 63.2
40	SCHOOL SOCIAL WORKER	38	119	162	16	69	85	+ 77	+ 90.6
41	SCHOOL NURSE	5	399	404	12	536	548	- 144	- 26.3
42	OTHER UNGRADED	287	1,092	1,379	218	942	1,186	+ 193	+ 16.3
	GRAND TOTAL	85,720	196,651	287,975	79,128	193,588	277,728	+10,247	+ 3.7

TABLE 28. -- COLLEGE STUDENTS COMPLETING MASTER'S DEGREE AND TOTAL COMPLETING BACHELOR'S AND MASTER'S DEGREES, 1972 AND 1971, BY FIELD

LINE NO.	TYPE OF PREPARATION	1972 MEN	1972 WOMEN	1972 TOTAL	1971 MEN	1971 WOMEN	1971 TOTAL	1971 TO 1972 NET CHANGE	1971 TO 1972 PERCENT CHANGE	TOTAL, BACHELOR'S AND MASTER'S 1972	TOTAL, BACHELOR'S AND MASTER'S 1971	NET CHANGE	PERCENT CHANGE
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ELEMENTARY-SCHOOL TOTAL	3,075	12,840	16,058	2,620	12,768	15,556	+ 502	+ 3.2	127,088	126,863	+ 225	+ .2
1	REGULAR INSTRUCTION	2,963	12,483	15,589	2,517	12,348	15,032	+ 557	+ 3.7	123,472	123,055	+ 417	+ .3
	SELECTED SUBJECTS (TOTAL)	112	357	469	103	420	524	- 55	- 10.5	3,616	3,808	- 192	- 5.0
2	ART	47	117	164	38	144	182	- 18	- 9.9	1,003	1,014	- 11	- 1.1
3	FOREIGN LANGUAGES	13	122	135	15	143	158	- 23	- 14.6	412	469	- 57	- 12.2
4	MUSIC	20	69	89	24	101	126	- 37	- 29.4	1,035	1,216	- 181	- 14.9
5	PHYSICAL & HEALTH EDUCATION	32	49	81	26	32	58	+ 23	+ 39.7	1,166	1,109	+ 57	+ 5.1
	SECONDARY SCHOOL												
6	AGRICULTURE	224	31	255	230	49	279	- 24	- 8.6	1,821	1,875	- 54	- 2.9
7	ART	274	553	827	291	644	935	- 108	- 11.6	9,095	8,340	+ 755	+ 9.1
8	BUSINESS EDUCATION	371	525	914	413	593	1,013	- 99	- 9.8	10,651	10,302	+ 349	+ 3.4
9	DISTRIBUTIVE EDUC.	62	52	114	66	50	116	- 2	- 1.7	951	847	+ 104	+ 12.3
	ENGLISH LANGUAGE ARTS (TOTAL)	1,122	2,299	3,441	1,167	2,470	3,637	- 196	- 5.4	33,008	32,421	+ 587	+ 1.8
10	ENGLISH	960	2,013	2,993	1,007	2,176	3,183	- 190	- 6.0	27,385	27,341	+ 44	+ .2
11	JOURNALISM	24	81	105	31	79	110	- 5	- 4.5	652	614	+ 38	+ 6.2
12	SPEECH & DRAMATIC ARTS	138	205	343	129	215	344	- 1	- .3	4,971	4,466	+ 505	+ 11.3
	FOREIGN LANGUAGES (TOTAL)	342	748	1,096	313	838	1,153	- 57	- 4.9	9,555	9,459	+ 96	+ 1.0
13	FRENCH	82	280	368	54	359	415	- 47	- 11.3	3,663	3,796	- 133	- 3.5
14	GERMAN	44	75	119	40	87	127	- 8	- 6.3	1,101	1,125	- 24	- 2.1
15	LATIN	9	16	25	13	13	26	- 1	- 3.8	229	270	- 41	- 15.2
16	RUSSIAN	12	14	26	11	12	23	+ 3	+ 13.0	159	146	+ 13	+ 8.9
17	SPANISH	152	286	438	150	300	450	- 12	- 2.7	4,027	3,781	+ 246	+ 6.5
18	OTHER	43	77	120	45	67	112	+ 8	+ 7.1	376	341	+ 35	+ 10.3
19	HOME ECONOMICS	27	610	637	9	611	622	+ 15	+ 2.4	8,728	8,606	+ 122	+ 1.4
20	INDUSTRIAL ARTS	555	4	559	654	14	668	- 109	- 16.3	5,986	5,561	+ 425	+ 7.6
21	JR. HIGH SCHOOL (GENERAL)	35	26	61	35	36	71	- 10	- 14.1	713	710	+ 3	+ .4
22	MATHEMATICS	926	570	1,499	836	580	1,416	+ 83	+ 5.9	12,443	11,981	+ 462	+ 3.9
23	MUSIC	351	339	690	360	331	691	- 1	- .1	8,563	7,943	+ 620	+ 7.8
24	PHYSICAL & HEALTH EDUCATION	1,412	795	2,232	1,355	765	2,174	+ 58	+ 2.7	26,104	22,844	+ 3,260	+ 14.3
	NATURAL & PHYSICAL SCIENCES(TOTAL)	1,267	577	1,850	1,199	662	1,864	- 14	- .8	12,775	12,202	+ 573	+ 4.7
25	SUBJECT NOT SPEC.	264	127	397	222	109	331	+ 66	+ 19.9	2,277	2,063	+ 214	+ 10.4
26	GENERAL SCIENCE	185	79	264	159	74	233	+ 31	+ 13.3	1,537	1,475	+ 62	+ 4.2
27	BIOLOGY	555	290	845	552	371	923	- 80	- 8.6	6,606	6,407	+ 199	+ 3.1
28	CHEMISTRY	159	65	224	157	93	251	- 27	- 10.8	1,552	1,520	+ 32	+ 2.1
29	PHYSICS	104	16	120	109	15	124	- 4	- 3.2	803	737	+ 66	+ 9.0
	SOCIAL STUDIES (TOTAL)	2,369	1,486	3,986	2,522	1,619	4,141	- 175	- 4.2	38,474	37,839	+ 635	+ 1.7
30	SUBJECT NOT SPEC.	869	590	1,519	1,024	688	1,712	- 193	- 11.3	16,690	17,010	- 320	- 1.9
31	HISTORY, GEOGRAPHY	1,019	615	1,635	999	652	1,651	- 16	- 1.0	13,896	14,051	- 155	- 1.1
32	ECONOMICS, SOCIOLOGY, PSYCHOLOGY	217	150	367	231	148	379	- 12	- 3.2	4,554	3,766	+ 788	+ 20.9
33	OTHER SOCIAL STUDIES	264	131	445	268	131	399	+ 46	+ 11.5	3,334	3,012	+ 322	+ 10.7
34	TRADE, INDUSTRY, TECHNOLOGY	137	16	153	129	14	143	+ 10	+ 7.0	924	905	+ 19	+ 2.1
35	OTHER SECONDARY SUBJ.	613	967	1,605	761	835	1,596	+ 9	+ .6	2,924	2,924	...	...
	SECONDARY-SCHOOL TOTAL	10,087	9,588	19,899	10,340	10,111	20,519	- 620	- 3.0	182,715	174,759	+ 7,956	+ 4.6
	UNGRADED												
36	SPECIAL EDUCATION	972	2,536	3,620	815	2,186	3,016	+ 604	+ 20.0	14,296	11,936	+ 2,360	+ 19.8
37	LIBRARIAN	136	717	873	142	792	934	- 61	- 6.5	1,937	2,033	- 96	- 4.7
38	GUIDANCE COUNSELOR	2,552	2,897	5,607	2,400	2,829	5,297	+ 310	+ 5.9	5,896	5,545	+ 351	+ 6.3
39	SCHOOL PSYCHOLOGIST	283	283	566	236	255	510	+ 56	+ 11.0	721	605	+ 116	+ 19.2
40	SCHOOL SOCIAL WORKER	128	101	229	21	29	50	+ 179	+358.0	391	135	+ 256	+189.6
41	SCHOOL NURSE	37	95	132	38	214	252	- 120	- 47.6	536	800	- 264	- 33.0
42	OTHER UNGRADED	1,277	1,358	2,660	1,442	1,290	2,732	- 72	- 2.6	4,039	3,918	+ 121	+ 3.1
	GRAND TOTAL	18,547	30,415	49,644	18,054	30,474	48,866	+ 778	+ 1.6	337,619	326,594	+11,025	+ 3.4

TABLE 3.–COLLEGE GRADUATES PREPARED TO TEACH, BY FIELD, AND PERCENT CHANGE FROM 1950[a]

Line no.	College graduates	1950	1952	1954	1956	1958	1960	1962	1964	1966	1968	1970	1971	1972 est.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Total receiving bachelor's degree[b]	432,058	329,986	290,825	308,812	362,554	389,183	414,275	494,174	551,040	666,710	827,234	877,676	903,000
2	Percent change from 1950	...	-23.6%	-32.7%	-28.5%	-16.1%	-9.9%	-4.1%	+14.4%	+27.5%	+54.3%	+91.5%	+103.1%	+109.0%
3	TOTAL PREPARED TO TEACH IN ELEMENTARY SCHOOL, REGULAR INSTRUCTION	28,587	37,649	36,885	40,801	45,318	52,630	57,854	72,581	77,703	91,336	109,265	123,055	123,472
4	Change from 1950	...	+31.7%	+29.0%	+42.7%	+58.5%	+84.1%	+102.4%	+153.9%	+171.8%	+219.5%	+282.2%	+330.5%	+331.9%
	PREPARED TO TEACH IN HIGH-SCHOOL OR SPECIFIC SUBJECTS:													
5	AGRICULTURE	3,294	1,891	1,541	1,549	1,804	1,379	1,032	997	1,787	1,443	1,811	1,875	1,821
6	Change from 1950	...	-42.6%	-53.2%	-53.0%	-45.2%	-58.1%	-68.7%	-69.7%	-45.7%	-56.2%	-45.0%	-43.1%	-44.7%
7	ART	2,225	2,249	1,856	2,072	2,233	2,719	3,031	4,031	4,998	6,502	8,569	9,354	10,098
8	Change from 1950	...	+1.1%	-16.6%	-6.9%	+0.4%	+22.2%	+36.2%	+81.2%	+124.6%	+192.2%	+285.1%	+320.4%	+353.8%
9	BUSINESS EDUCATION	7,235	5,165	4,076	5,494	6,166	7,106	6,752	7,207	7,261	8,618	10,575	10,302	10,651
10	Change from 1950	...	-28.6%	-43.7%	-24.1%	-14.8%	-1.8%	-6.7%	-0.4%	-0.4%	+19.1%	+46.2%	+42.4%	+47.2%
11	ENGLISH	10,709	8,211	5,278	5,945	7,706	9,295	11,886	16,021	18,410	23,008	26,594	27,341	27,385
12	Change from 1950	...	-23.3%	-50.7%	-44.5%	-28.0%	-13.2%	+11.0%	+49.6%	+71.9%	+114.8%	+148.3%	+155.3%	+155.7%
13	FOREIGN LANGUAGES	2,193	1,859	1,368	1,424	1,627	2,178	3,227	5,281	7,162	9,015	9,640	9,928	9,967
14	Change from 1950	...	-15.2%	-37.6%	-35.1%	-25.8%	-0.7%	+47.2%	+140.8%	+226.5%	+311.1%	+339.6%	+352.7%	+354.5%
15	HOME ECONOMICS	4,899	4,648	4,212	4,522	4,575	4,812	4,788	5,281	5,690	6,754	8,115	8,606	8,728
16	Change from 1950	...	-5.1%	-14.0%	-7.7%	-6.6%	-1.8%	-2.3%	+7.8%	+16.1%	+37.9%	+65.6%	+75.7%	+78.2%
17	INDUSTRIAL ARTS	4,890	3,161	2,201	2,655	3,791	3,785	3,325	3,435	3,432	4,325	5,105	5,561	5,986
18	Change from 1950	...	-35.4%	-55.0%	-45.7%	-22.5%	-22.6%	-32.0%	-29.8%	-29.8%	-11.5%	+4.4%	+13.7%	+22.4%
19	MATHEMATICS	4,618	3,142	2,223	2,544	3,445	5,652	6,839	8,026	9,193	10,090	11,106	11,981	12,443
20	Change from 1950	...	-32.0%	-51.9%	-44.9%	-25.4%	+22.4%	+48.1%	+73.8%	+99.1%	+118.5%	+140.5%	+159.4%	+169.4%
21	MUSIC	5,296	4,882	4,323	4,798	5,189	5,200	5,302	5,978	6,311	7,335	8,704	9,159	9,598
22	Change from 1950	...	-7.8%	-18.4%	-9.4%	-2.0%	-1.8%	+0.1%	+12.9%	+19.2%	+38.5%	+64.4%	+72.9%	+81.2%
23	MEN'S PHYSICAL EDUCATION	10,614	6,546	4,834	5,718	7,430	7,332	6,997	7,181	8,552[c]	9,137	12,544	14,135	16,505
24	Change from 1950	...	-38.3%	-54.5%	-46.1%	-30.0%	-30.9%	-34.1%	-32.3%	-19.4%	-13.9%	+18.2%	+33.2%	+55.5%
25	WOMEN'S PHYSICAL EDUCATION	3,178	2,607	2,440	2,629	2,762	3,177	3,414	4,063	4,924[c]	6,547	8,364	9,818	10,765
26	Change from 1950	...	-18.0%	-23.2%	-17.3%	-13.1%	*d*	+7.4%	+27.8%	+54.9%	+106.0%	+163.2%	+208.9%	+238.7%
27	NATURAL AND PHYSICAL SCIENCES	9,096	5,246	3,641	4,320	5,467	7,119	7,808	8,608	10,476	10,126	11,501	12,202	12,775
28	Change from 1950	...	-40.3%	-60.0%	-52.5%	-39.9%	-21.7%	-14.2%	-5.4%	+15.2%	+11.3%	+26.4%	+34.1%	+40.2%
29	SOCIAL STUDIES	15,349	9,406	7,227	9,125	11,672	13,197	14,724	18,583	22,381	26,328	34,079	37,839	38,474
30	Change from 1950	...	-38.7%	-52.9%	-40.5%	-24.0%	-14.0%	-4.1%	+21.1%	+45.8%	+71.5%	+122.0%	+146.5%	+150.7%
31	OTHER FIELDS[e]	3,294	2,497	3,696	3,990	5,226	4,622	5,364	6,860	11,631[f]	14,383[f]	20,044[f]	24,435	27,368
32	Change from 1950	...	-24.4%	+12.2%	+21.1%	+58.7%	+40.3%	+62.8%	+108.3%	+253.1%	+336.6%	+508.5%	+641.8%	+730.8%
33	TOTAL PREPARED TO TEACH HIGH-SCHOOL SUBJECTS	86,890	61,510	48,916	56,785	69,093	77,573	84,489	101,552	122,208	143,611	176,751	192,536	202,564
34	Change from 1950	...	-29.2%	-43.7%	-34.6%	-20.5%	-10.7%	-2.8%	+16.9%	+40.6%	+65.3%	+103.4%	+121.6%	+133.1%
35	PREPARED TO ENTER SELECTED POSITIONS[g]	...	...	...	...	...	...	...	...	5,007	6,557	10,498	11,003	11,583
36	GRAND TOTAL PREPARED	115,477	99,159	85,801	97,586	114,411	130,203	142,343	174,133	204,918	241,504	296,514	326,594	337,619
37	Change from 1950	...	-14.1%	-25.7%	-15.5%	-0.9%	+12.8%	+23.3%	+50.8%	+77.5%	+109.1%	+156.8%	+182.8%	+192.4%

[a]Excludes students meeting certificate at 90-, 60-, or 30-hour levels.

[b]Information to 1958 is from: U. S. Department of Health, Education and Welfare, Office of Education. *Digest of Educational Statistics.* Washington, D. C.: Government Printing Office, 1971, p. 93; data for subsequent years are from U. S. Department of Health, Education and Welfare, Office of Education. *Projections of Educational Statistics to 1980-81,* 1971 edition, p. 43. Washington, D. C.: Government Printing Office. Includes bachelor's and first professional degrees.

[c]Numbers of persons for whom sex was not reported are included proportionally.

[d]Minus less than 1/10 of 1 percent.

[e]Includes persons prepared to teach distributive education, unspecified junior high-school subjects, trade and industrial courses, special education, speech, drama, journalism, library science; and subjects not specified.

[f]Not directly comparable with earlier years owing to changes in the data-collection instruments.

[g]Includes persons prepared for employment as guidance counselors, school psychologists, school social workers, school nurses, and other supportive staff positions.

TABLE 4. -- COLLEGE STUDENTS RECEIVING DEGREES AND PREPARATION TO TEACH IN ELEMENTARY AND SECONDARY SCHOOLS, 1972 AND 1971, BY STATE

STATE	BACHELOR'S AND MASTER'S COMBINED TOTAL, 1972	TOTAL, 1971	NET CHANGE	PERCENT CHANGE
1	2	3	4	5
ALABAMA	4,960	4,876	+ 84	+ 1.7
ALASKA	261	237	+ 24	+10.1
ARIZONA	3,522	3,232	+ 290	+ 9.0
ARKANSAS	3,051	3,396	- 345	-10.2
CALIFORNIA	15,880	16,884	- 1,004	- 5.9
COLORADO	4,035	4,728	- 693	-14.7
CONNECTICUT	4,689	4,193	+ 496	+11.8
DELAWARE	700	552	+ 148	+26.8
DISTRICT OF COLUMBIA	1,098	1,037	+ 61	+ 5.9
FLORIDA	7,001	7,107	- 106	- 1.5
GEORGIA	5,975	5,419	+ 556	+10.3
HAWAII	1,464	1,087	+ 377	+34.7
IDAHO	1,390	1,296	+ 94	+ 7.3
ILLINOIS	17,898	16,650	+ 1,248	+ 7.5
INDIANA	10,657	10,287	+ 370	+ 3.6
IOWA	5,721	5,350	+ 371	+ 6.9
KANSAS	4,737	4,827	- 90	- 1.9
KENTUCKY	6,269	6,216	+ 53	+ .9
LOUISIANA	5,231	4,896	+ 335	+ 6.8
MAINE	1,634	1,664	- 30	- 1.8
MARYLAND	3,195	3,099	+ 96	+ 3.1
MASSACHUSETTS	10,257	9,801	+ 456	+ 4.7
MICHIGAN	14,917	15,483	- 566	- 3.7
MINNESOTA	6,222	7,758	- 1,536	-19.8
MISSISSIPPI	5,492	4,475	+ 1,017	+22.7
MISSOURI	8,891	7,914	+ 977	+12.3
MONTANA	1,986	1,870	+ 116	+ 6.2
NEBRASKA	4,103	4,045	+ 58	+ 1.4
NEVADA	646	522	+ 124	+23.8
NEW HAMPSHIRE	1,131	985	+ 146	+14.8
NEW JERSEY	8,461	7,617	+ 844	+11.1
NEW MEXICO	2,297	1,726	+ 571	+33.1
NEW YORK	24,889	23,843	+ 1,046	+ 4.4
NORTH CAROLINA	8,037	7,710	+ 327	+ 4.2
NORTH DAKOTA	1,983	1,968	+ 15	+ .8
OHIO	16,231	16,177	+ 54	+ .3
OKLAHOMA	5,942	5,775	+ 167	+ 2.9
OREGON	3,422	3,595	- 173	- 4.8
PENNSYLVANIA	17,590	17,392	+ 198	+ 1.1
RHODE ISLAND	1,341	1,546	- 205	-13.3
SOUTH CAROLINA	2,933	2,693	+ 240	+ 8.9
SOUTH DAKOTA	2,550	2,476	+ 74	+ 3.0
TENNESSEE	6,534	6,448	+ 86	+ 1.3
TEXAS	17,932	16,848	+ 1,084	+ 6.4
UTAH	3,102	3,046	+ 56	+ 1.8
VERMONT	528	545	- 17	- 3.1
VIRGINIA	5,405	4,712	+ 693	+14.7
WASHINGTON	4,925	5,499	- 574	-10.4
WEST VIRGINIA	3,538	3,361	+ 177	+ 5.3
WISCONSIN	8,591	8,286	+ 305	+ 3.7
WYOMING	559	473	+ 86	+18.2
TOTAL	309,803	301,622	+ 8,181	+ 2.7

TABLE 5. -- COLLEGE STUDENTS RECEIVING DEGREES AND PREPARATION TO TEACH IN THE ELEMENTARY SCHOOL, 1972 AND 1971, BY STATE

STATE	BACHELOR'S DEGREE						MASTER'S DEGREE					
	GRADUATES OF 1972		TOTAL,	1971 TO 1972			GRADUATES OF 1972		TOTAL,	1971 TO 1972		
	MEN	WOMEN	TOTAL	1971	NET CHANGE	PERCENT CHANGE	MEN	WOMEN	TOTAL	1971	NET CHANGE	PERCENT CHANGE
1	2	3	4	5	6	7	8	9	10	11	12	13
ALABAMA	51	1,225	1,276	1,372	- 96	- 7.0	39	236	275	244	+ 31	+ 12.7
ALASKA	11	66	77	76	+ 1	+ 1.3	29	58	87	83	+ 4	+ 4.8
ARIZONA	185	1,202	1,387	1,327	+ 60	+ 4.5	100	305	405	307	+ 98	+ 31.9
ARKANSAS	76	481	557	1,026	- 469	- 45.7	20	127	147	168	- 21	- 12.5
CALIFORNIA	509	2,406	2,916	3,439	- 523	- 15.2	965	4,142	5,117	5,088	+ 29	+ .6
COLORADO	127	1,263	1,390	1,451	- 61	- 4.2	22	135	157	164	- 7	- 4.3
CONNECTICUT	160	1,490	1,864	1,667	+ 197	+ 11.8	89	301	390	415	- 25	- 6.0
DELAWARE	29	276	305	228	+ 77	+ 33.8	...	...	...	...	...	...
DISTRICT OF COLUMBIA	29	457	488	455	+ 33	+ 7.3	5	52	57	81	- 24	- 29.6
FLORIDA	401	2,438	2,839	2,889	- 50	- 1.7	29	210	239	283	- 44	- 15.5
GEORGIA	94	2,057	2,151	2,046	+ 105	+ 5.1	72	452	524	449	+ 75	+ 16.7
HAWAII	62	554	616	430	+ 186	+ 43.3	26	222	248	216	+ 32	+ 14.8
IDAHO	69	373	442	515	- 73	- 14.2	19	75	94	10	+ 84	+840.0
ILLINOIS	640	5,896	6,536	6,390	+ 146	+ 2.3	64	310	374	361	+ 13	+ 3.6
INDIANA	273	3,039	3,734	3,583	+ 151	+ 4.2	111	638	749	760	- 11	- 1.4
IOWA	124	1,974	2,098	1,985	+ 113	+ 5.7	...	...	...	...	...	...
KANSAS	134	1,619	1,753	1,760	- 7	- .4	11	65	76	128	- 52	- 40.6
KENTUCKY	223	1,839	2,062	2,137	- 75	- 3.5	42	127	169	127	+ 42	+ 33.1
LOUISIANA	151	1,831	1,982	1,811	+ 171	+ 9.4	10	61	71	152	- 81	- 53.3
MAINE	79	361	606	592	+ 14	+ 2.4	40	31	93	71	+ 22	+ 31.0
MARYLAND	175	1,366	1,541	1,498	+ 43	+ 2.9	32	40	72	62	+ 10	+ 16.1
MASSACHUSETTS	452	3,850	4,939	4,471	+ 468	+ 10.5	43	201	333	452	- 119	- 26.3
MICHIGAN	675	5,103	5,778	5,856	- 78	- 1.3	89	127	216	201	+ 15	+ 7.5
MINNESOTA	292	1,849	2,260	3,210	- 950	- 29.6	16	11	27	46	- 19	- 41.3
MISSISSIPPI	93	1,265	1,358	1,395	- 37	- 2.7	25	50	75	54	+ 21	+ 38.9
MISSOURI	292	2,553	2,845	2,820	+ 25	+ .9	65	158	223	267	- 44	- 16.5
MONTANA	102	622	724	635	+ 89	+ 14.0	21	31	52	39	+ 13	+ 33.3
NEBRASKA	278	1,357	1,635	1,703	- 68	- 4.0	9	7	16	17	- 1	- 5.9
NEVADA	32	180	212	181	+ 31	+ 17.1	7	22	29	25	+ 4	+ 16.0
NEW HAMPSHIRE	28	440	468	413	+ 55	+ 13.3	9	6	15	8	+ 7	+ 87.5
NEW JERSEY	500	3,190	3,690	3,481	+ 209	+ 6.0	46	144	190	164	+ 26	+ 15.9
NEW MEXICO	62	395	681	550	+ 131	+ 23.8	11	45	76	46	+ 30	+ 65.2
NEW YORK	933	7,961	8,894	8,625	+ 269	+ 3.1	429	2,950	3,379	3,062	+ 317	+ 10.4
NORTH CAROLINA	161	2,345	2,506	2,376	+ 130	+ 5.5	40	277	317	273	+ 44	+ 16.1
NORTH DAKOTA	58	486	544	590	- 46	- 7.8	...	...	...	...	...	...
OHIO	768	5,613	6,381	6,399	- 18	- .3	122	92	214	167	+ 47	+ 28.1
OKLAHOMA	202	1,538	1,883	1,854	+ 29	+ 1.6	39	99	140	172	- 32	- 18.6
OREGON	188	1,275	1,463	1,569	- 106	- 6.8	13	5	18	73	- 55	- 75.3
PENNSYLVANIA	1,056	6,223	7,279	7,211	+ 68	+ .9	57	159	216	251	- 35	- 13.9
RHODE ISLAND	124	391	523	581	- 58	- 10.0	32	62	94	103	- 9	- 8.7
SOUTH CAROLINA	34	1,028	1,062	1,053	+ 9	+ .9	20	33	53	21	+ 32	+152.4
SOUTH DAKOTA	66	802	868	909	- 41	- 4.5	3	4	7	8	- 1	- 12.5
TENNESSEE	326	1,896	2,222	2,212	+ 10	+ .5	28	43	71	73	- 2	- 2.7
TEXAS	356	5,893	6,249	6,058	+ 191	+ 3.2	101	462	563	540	+ 23	+ 4.3
UTAH	106	1,184	1,290	1,309	- 19	- 1.5	5	10	15	21	- 6	- 28.6
VERMONT	38	202	240	247	- 7	- 2.8	...	...	...	...	...	...
VIRGINIA	117	1,862	1,979	1,733	+ 246	+ 14.2	11	87	98	71	+ 27	+ 38.0
WASHINGTON	428	1,504	1,932	2,523	- 591	- 23.4	...	...	...	...	...	...
WEST VIRGINIA	193	1,011	1,204	1,142	+ 62	+ 5.4	...	...	...	...	...	...
WISCONSIN	416	2,792	3,208	3,383	- 175	- 5.2	102	163	265	221	+ 44	+ 19.9
WYOMING	10	83	93	141	- 48	- 34.0	7	5	12	12	...	...
TOTAL	11,988	97,106	111,030	111,307	- 277	- .2	3,075	12,840	16,058	15,556	+ 502	+ 3.2

TABLE 6. -- COLLEGE STUDENTS RECEIVING DEGREES AND PREPARATION TO TEACH IN THE SECONDARY SCHOOL, 1972 AND 1971, BY STATE

STATE	BACHELOR'S DEGREE						MASTER'S DEGREE					
	GRADUATES OF 1972			TOTAL, 1971	1971 TO 1972		GRADUATES OF 1972			TOTAL, 1971	1971 TO 1972	
	MEN	WOMEN	TOTAL		NET CHANGE	PERCENT CHANGE	MEN	WOMEN	TOTAL		NET CHANGE	PERCENT CHANGE
1	2	3	4	5	6	7	8	9	10	11	12	13
ALABAMA	1,050	1,930	2,980	2,932	+ 48	+ 1.6	210	219	429	328	+ 101	+ 30.8
ALASKA	27	33	60	51	+ 9	+ 17.6	18	19	37	27	+ 10	+ 37.0
ARIZONA	599	636	1,235	1,186	+ 49	+ 4.1	305	190	495	412	+ 83	+ 20.1
ARKANSAS	948	1,183	2,131	1,994	+ 137	+ 6.9	112	104	216	208	+ 8	+ 3.8
CALIFORNIA	812	728	1,540	1,295	+ 245	+ 18.9	3,189	3,107	6,307	7,062	- 755	- 10.7
COLORADO	991	1,135	2,126	2,714	- 588	- 21.7	214	148	362	399	- 37	- 9.3
CONNECTICUT	921	792	1,999	1,797	+ 202	+ 11.2	223	213	436	314	+ 122	+ 38.9
DELAWARE	169	219	388	315	+ 73	+ 23.2	2	5	7	9	- 2	- 22.2
DISTRICT OF COLUMBIA	117	353	529	476	+ 53	+ 11.1	11	13	24	25	- 1	- 4.0
FLORIDA	1,588	2,040	3,628	3,550	+ 78	+ 2.2	165	130	295	385	- 90	- 23.4
GEORGIA	936	1,948	2,884	2,498	+ 386	+ 15.5	183	233	416	426	- 10	- 2.3
HAWAII	185	223	408	233	+ 175	+ 75.1	90	102	192	208	- 16	- 7.7
IDAHO	393	368	761	723	+ 38	+ 5.3	62	31	93	48	+ 45	+ 93.8
ILLINOIS	4,644	5,570	10,214	9,180	+ 1,034	+ 11.3	485	289	774	719	+ 55	+ 7.6
INDIANA	2,301	2,797	6,050	5,828	+ 222	+ 3.8	41	83	124	116	+ 8	+ 6.9
IOWA	1,775	1,848	3,623	3,365	+ 258	+ 7.7	...	...	...	...	...	...
KANSAS	1,280	1,444	2,724	2,683	+ 41	+ 1.5	112	72	184	256	- 72	- 28.1
KENTUCKY	1,705	2,175	3,880	3,804	+ 76	+ 2.0	88	70	158	148	+ 10	+ 6.8
LOUISIANA	1,107	1,945	3,052	2,732	+ 320	+ 11.7	59	67	126	201	- 75	- 37.3
MAINE	384	323	916	961	- 45	- 4.7	...	...	19	40	- 21	- 52.5
MARYLAND	532	964	1,496	1,396	+ 100	+ 7.2	60	26	86	143	- 57	- 39.9
MASSACHUSETTS	1,727	2,206	4,527	4,486	+ 41	+ .9	136	179	458	392	+ 66	+ 16.8
MICHIGAN	4,200	4,441	8,641	9,132	- 491	- 5.4	141	141	282	294	- 12	- 4.1
MINNESOTA	1,798	1,915	3,728	4,274	- 546	- 12.8	150	57	207	228	- 21	- 9.2
MISSISSIPPI	1,744	2,134	3,878	2,854	+ 1,024	+ 35.9	90	91	181	172	+ 9	+ 5.2
MISSOURI	3,068	2,457	5,525	4,420	+ 1,105	+ 25.0	117	181	298	407	- 109	- 26.8
MONTANA	623	582	1,205	1,165	+ 40	+ 3.4	5	...	5	31	- 26	- 83.9
NEBRASKA	1,275	1,160	2,435	2,290	+ 145	+ 6.3	14	3	17	35	- 18	- 51.4
NEVADA	178	214	392	311	+ 81	+ 26.0	8	5	13	5	+ 8	+160.0
NEW HAMPSHIRE	277	311	588	502	+ 86	+ 17.1	30	30	60	62	- 2	- 3.2
NEW JERSEY	1,590	2,029	4,283	3,767	+ 516	+ 13.7	171	127	298	205	+ 93	+ 45.4
NEW MEXICO	468	483	1,378	992	+ 386	+ 38.9	77	85	162	138	+ 24	+ 17.4
NEW YORK	4,051	5,879	9,930	9,592	+ 338	+ 3.5	1,207	1,479	2,686	2,564	+ 122	+ 4.8
NORTH CAROLINA	1,880	2,675	4,555	4,428	+ 127	+ 2.9	242	417	659	633	+ 26	+ 4.1
NORTH DAKOTA	764	631	1,395	1,344	+ 51	+ 3.8	31	13	44	34	+ 10	+ 29.4
OHIO	4,268	5,146	9,414	9,175	+ 239	+ 2.6	116	106	222	436	- 214	- 49.1
OKLAHOMA	1,647	1,815	3,578	3,397	+ 181	+ 5.3	215	125	341	352	- 11	- 3.1
OREGON	805	982	1,787	1,791	- 4	- .2	84	70	154	162	- 8	- 4.9
PENNSYLVANIA	4,632	5,111	9,743	9,480	+ 263	+ 2.8	161	191	352	450	- 98	- 21.8
RHODE ISLAND	230	377	607	698	- 91	- 13.0	58	59	117	164	- 47	- 28.7
SOUTH CAROLINA	640	1,040	1,680	1,492	+ 188	+ 12.6	78	60	138	127	+ 11	+ 8.7
SOUTH DAKOTA	912	724	1,636	1,520	+ 116	+ 7.6	26	13	39	39	...	...
TENNESSEE	1,847	2,251	4,098	3,998	+ 100	+ 2.5	91	52	143	165	- 22	- 13.3
TEXAS	3,628	6,127	9,755	8,950	+ 805	+ 9.0	703	612	1,365	1,300	+ 65	+ 5.0
UTAH	781	952	1,733	1,639	+ 94	+ 5.7	41	23	64	77	- 13	- 16.9
VERMONT	187	74	261	276	- 15	- 5.4	17	10	27	22	+ 5	+ 22.7
VIRGINIA	968	2,118	3,086	2,753	+ 333	+ 12.1	130	112	242	155	+ 87	+ 56.1
WASHINGTON	1,395	1,598	2,993	2,976	+ 17	+ .6	...	...	...	...	...	...
WEST VIRGINIA	1,086	1,248	2,334	2,219	+ 115	+ 5.2	...	...	...	...	...	...
WISCONSIN	2,132	2,488	4,620	4,303	+ 317	+ 7.4	291	207	498	379	+ 119	+ 31.4
WYOMING	206	201	407	303	+ 104	+ 34.3	28	19	47	17	+ 30	+176.5
TOTAL	71,471	88,023	162,816	154,240	+ 8,576	+ 5.6	10,087	9,588	19,899	20,519	- 620	- 3.0

TABLE 7.--OCCUPATION ON NOVEMBER 1, 1971, OF PERSONS WHO WERE GRADUATED BETWEEN SEPTEMBER 1, 1970, AND AUGUST 31, 1971, WITH QUALIFICATIONS FOR STANDARD TEACHING CERTIFICATES

FIELD OF PREPARATION		PERCENT TEACHING				PERCENT NOT TEACHING						TOTAL PERCENT	NUMBER OF GRADUATES
		IN STATE	OUT OF STATE	TOTAL	OTHERWISE GAINFULLY EMPLOYED	CONTINUING FORMAL STUDY	MILITARY SERVICE	HOMEMAKING	SEEKING TEACHING JOB	SEEKING NON TEACHING JOB	NO INFORMATION		
1		2	3	4	5	6	7	8	9	10	11	12	13
ELEMENTARY-SCHOOL TOTAL	MEN	46.1	9.6	55.7	4.6	3.6	3.6	.0	3.9	.4	28.1	100.0	11,789
	WOMEN	51.3	10.4	61.7	3.7	2.6	.0	3.9	7.9	.3	19.9	100.0	92,896
	BOTH	50.7	10.3	61.0	3.8	2.7	.4	3.4	7.4	.3	20.8	100.0	104,685
REGULAR INSTRUCTION	MEN	46.0	9.7	55.7	4.6	3.6	3.7	.0	3.8	.5	28.1	100.0	10,903
	WOMEN	51.3	10.4	61.7	3.7	2.6	.0	3.9	7.9	.3	19.8	100.0	90,882
	BOTH	50.7	10.3	61.0	3.8	2.7	.4	3.5	7.5	.3	20.7	100.0	101,785
ART	MEN	54.3	7.2	61.6	4.3	2.2	2.9	.0	9.4	.7	18.8	100.0	138
	WOMEN	50.5	10.5	60.9	3.1	2.1	.0	2.1	11.9	.8	19.1	100.0	622
	BOTH	51.2	9.9	61.1	3.3	2.1	.5	1.7	11.4	.8	19.1	100.0	760
FOREIGN LANGUAGE	MEN	39.1	8.7	47.8	4.3	4.3	.0	.0	.0	.0	43.5	100.0	23
	WOMEN	49.6	13.5	63.2	4.5	3.0	.0	3.8	6.8	.0	18.8	100.0	133
	BOTH	48.1	12.8	60.9	4.5	3.2	.0	3.2	5.8	.0	22.4	100.0	156
MUSIC	MEN	42.3	9.2	51.5	6.7	5.4	2.5	.0	2.9	.0	31.0	100.0	239
	WOMEN	58.2	12.8	71.0	2.4	1.7	.0	1.2	3.7	.4	19.5	100.0	694
	BOTH	54.1	11.9	66.0	3.5	2.7	.6	.9	3.5	.3	22.4	100.0	933
PHY. AND HEALTH EDUC.	MEN	48.1	8.8	57.0	2.7	2.7	3.5	.0	4.5	.0	29.6	100.0	486
	WOMEN	44.4	11.0	55.4	2.5	1.8	.0	3.4	6.9	.0	30.1	100.0	565
	BOTH	46.1	10.0	56.1	2.6	2.2	1.6	1.8	5.8	.0	29.9	100.0	1,051
SECONDARY SCHOOL													
AGRICULTURE	MEN	41.0	6.5	47.5	19.2	6.7	7.9	.0	1.0	.2	17.6	100.0	1,487
	WOMEN	25.9	7.1	32.9	9.4	7.1	.0	1.2	.0	10.6	38.8	100.0	85
	BOTH	40.2	6.5	46.7	18.6	6.7	7.5	.1	1.0	.8	18.7	100.0	1,572
ART	MEN	37.7	8.9	46.6	7.2	5.9	3.8	.0	8.9	1.0	26.6	100.0	1,930
	WOMEN	38.5	8.0	46.6	6.9	3.7	.0	5.3	11.0	.8	25.9	100.0	4,966
	BOTH	38.3	8.3	46.6	7.0	4.3	1.1	3.8	10.4	.9	26.1	100.0	6,896
BUSINESS EDUCATION	MEN	40.5	8.0	48.6	15.3	4.2	5.1	.0	5.9	.7	20.3	100.0	2,526
	WOMEN	39.3	7.4	46.8	17.0	3.0	.0	5.7	5.5	1.0	21.0	100.0	5,975
	BOTH	39.7	7.6	47.3	16.5	3.3	1.5	4.0	5.6	.9	20.8	100.0	8,501
DISTRIBUTIVE EDUCATION	MEN	44.9	9.1	54.0	11.0	3.0	4.6	.0	4.2	1.5	21.7	100.0	474
	WOMEN	41.2	12.9	54.1	6.3	3.9	.0	6.3	6.3	.8	22.4	100.0	255
	BOTH	43.6	10.4	54.0	9.3	3.3	3.0	2.2	4.9	1.2	21.9	100.0	729
ENGLISH	MEN	38.8	8.3	47.1	8.2	7.2	4.0	.0	8.3	.6	24.6	100.0	5,176
	WOMEN	39.2	9.1	48.3	6.9	5.6	.1	4.3	9.8	.6	24.3	100.0	17,539
	BOTH	39.1	8.9	48.0	7.2	5.9	1.0	3.3	9.5	.6	24.4	100.0	22,715
JOURNALISM	MEN	34.8	5.8	40.6	10.9	5.1	7.2	.0	8.0	.0	28.3	100.0	138
	WOMEN	29.9	4.8	34.8	8.9	8.1	.0	4.1	10.4	1.5	32.2	100.0	394
	BOTH	31.2	5.1	36.3	9.4	7.3	1.9	3.0	9.8	1.1	31.2	100.0	532
SPEECH AND DRAMATIC ARTS	MEN	30.4	7.0	37.3	12.0	10.9	5.0	.0	9.2	.5	25.1	100.0	1,208
	WOMEN	28.2	9.1	37.3	8.7	9.6	.1	4.4	10.5	1.0	28.4	100.0	2,624
	BOTH	28.9	8.4	37.3	9.7	10.0	1.6	3.0	10.1	.8	27.3	100.0	3,832
FOREIGN LANGUAGE	MEN	38.4	8.4	46.9	7.3	8.1	4.3	.0	8.9	.9	23.8	100.0	1,434
	WOMEN	35.8	9.3	45.2	7.5	6.7	.1	4.1	11.0	.8	24.6	100.0	6,561
	BOTH	36.3	9.2	45.5	7.5	6.9	.9	3.4	10.6	.8	24.5	100.0	7,995
HOME ECONOMICS	MEN	26.7	6.7	33.3	.0	6.7	.0	.0	.0	26.7	33.3	100.0	15
	WOMEN	38.6	10.0	48.6	10.6	3.9	.1	7.1	8.8	.7	20.3	100.0	7,105
	BOTH	38.6	10.0	48.6	10.6	3.9	.1	7.1	8.8	.7	20.3	100.0	7,120
INDUSTRIAL ARTS	MEN	49.6	13.3	62.9	7.7	5.6	6.1	.0	2.8	.3	14.7	100.0	4,307
	WOMEN	29.2	12.5	41.7	12.5	2.1	.0	4.2	12.5	.0	27.1	100.0	48
	BOTH	49.4	13.3	62.6	7.7	5.6	6.0	.0	2.9	.3	14.8	100.0	4,355
JUNIOR H. S. SUBJECTS	MEN	60.1	9.3	69.4	4.1	2.0	5.0	.0	4.4	.3	14.9	100.0	343
	WOMEN	57.0	6.9	64.0	1.4	1.4	.0	4.8	5.8	.0	22.6	100.0	433
	BOTH	58.4	8.0	66.4	2.6	1.7	2.2	2.7	5.2	.1	19.2	100.0	776

1		2	3	4	5	6	7	8	9	10	11	12	13
MATHEMATICS	MEN	49.7	10.0	59.7	6.1	5.4	7.1	.0	4.1	.4	17.1	100.0	4,760
	WOMEN	51.4	10.9	62.3	5.1	5.4	.2	3.1	5.2	.4	18.3	100.0	5,472
	BOTH	50.6	10.5	61.1	5.5	5.4	3.4	1.7	4.7	.4	17.8	100.0	10,232
MUSIC	MEN	43.2	11.4	54.6	6.1	9.0	6.3	.0	3.5	.4	20.2	100.0	3,003
	WOMEN	43.3	14.0	57.3	5.4	6.2	.1	4.9	4.6	.4	21.0	100.0	4,054
	BOTH	43.2	12.9	56.2	5.7	7.4	2.7	2.8	4.1	.4	20.7	100.0	7,057
PHYSICAL AND HEALTH EDUC.	MEN	35.4	10.4	45.8	7.9	7.7	7.0	.0	7.1	.6	23.9	100.0	10,914
	WOMEN	42.7	11.9	54.6	6.6	4.3	.2	4.7	8.9	.6	20.0	100.0	7,781
	BOTH	38.5	11.0	49.5	7.4	6.3	4.2	2.0	7.9	.6	22.3	100.0	18,695
NAT. AND PHYS. SCIENCES (NOT SPECIFIED)	MEN	44.5	11.0	55.5	4.9	4.9	6.0	.0	4.3	.2	24.2	100.0	946
	WOMEN	39.6	8.5	48.1	5.8	5.2	.6	4.4	5.2	.2	30.6	100.0	503
	BOTH	42.8	10.1	52.9	5.2	5.0	4.1	1.5	4.6	.2	26.4	100.0	1,449
GENERAL NAT. AND PHYS. SCIENCES	MEN	43.6	8.1	51.6	10.1	5.4	5.2	.0	6.1	1.1	20.5	100.0	1,005
	WOMEN	41.7	10.7	52.3	7.0	7.2	.2	4.3	7.2	1.2	20.7	100.0	516
	BOTH	42.9	8.9	51.9	9.1	6.0	3.5	1.4	6.4	1.1	20.6	100.0	1,521
BIOLOGY	MEN	43.0	8.8	51.9	7.7	7.8	6.4	.0	4.8	.8	20.7	100.0	3,026
	WOMEN	43.0	9.1	52.1	6.9	8.0	.3	4.6	6.1	.5	21.5	100.0	2,261
	BOTH	43.0	8.9	52.0	7.3	7.9	3.8	2.0	5.4	.7	21.0	100.0	5,287
CHEMISTRY	MEN	46.7	9.8	56.4	7.0	9.2	4.6	.0	4.0	1.0	17.7	100.0	769
	WOMEN	38.3	11.2	49.4	6.0	6.9	.2	5.1	4.3	.7	27.3	100.0	447
	BOTH	43.6	10.3	53.9	6.7	8.4	3.0	1.9	4.1	.9	21.2	100.0	1,216
PHYSICS	MEN	39.6	9.4	49.1	6.8	8.7	5.7	.0	4.2	1.1	24.5	100.0	530
	WOMEN	21.7	10.5	32.2	10.5	10.5	.0	6.6	5.3	.7	34.2	100.0	152
	BOTH	35.6	9.7	45.3	7.6	9.1	4.4	1.5	4.4	1.0	26.7	100.0	682
SOCIAL STUDIES	MEN	28.2	6.2	34.5	10.5	8.1	6.4	.0	11.4	.8	28.5	100.0	17,107
	WOMEN	27.5	6.9	34.4	9.1	6.5	.2	5.1	12.6	1.2	31.0	100.0	11,700
	BOTH	27.9	6.5	34.4	9.9	7.4	3.9	2.1	11.9	.9	29.5	100.0	28,807
TRADE, INDUST., VOC., TECH.,	MEN	25.3	8.2	33.5	8.5	7.9	3.6	.0	2.4	.1	43.9	100.0	668
	WOMEN	8.2	1.2	9.4	2.4	.0	.0	1.2	.0	.0	87.1	100.0	85
	BOTH	23.4	7.4	30.8	7.8	7.0	3.2	.1	2.1	.1	48.7	100.0	753
OTHER SEC. SCHOOL SUBJECTS	MEN	37.5	7.7	45.1	7.8	7.9	4.9	.0	6.5	.0	27.8	100.0	1,017
	WOMEN	35.6	3.7	39.3	11.6	6.9	.0	3.4	8.2	.5	30.2	100.0	1,192
	BOTH	36.4	5.5	42.0	9.8	7.3	2.3	1.8	7.4	.3	29.1	100.0	2,209
SECONDARY TOTAL	MEN	37.5	8.7	46.2	9.0	7.2	6.0	.0	7.3	.6	23.6	100.0	62,783
	WOMEN	38.2	9.2	47.4	8.2	5.5	.1	4.8	9.1	.8	24.1	100.0	80,148
	BOTH	37.9	9.0	46.9	8.5	6.2	2.7	2.7	8.3	.7	23.9	100.0	142,931
UNGRADED													
SPECIAL EDUCATION	MEN	52.0	10.1	62.0	2.8	5.7	1.7	.0	3.7	.3	23.6	100.0	1,486
	WOMEN	53.1	12.2	65.3	3.2	4.6	.0	2.2	3.5	.2	20.9	100.0	8,003
	BOTH	52.9	11.9	64.8	3.2	4.8	.3	1.9	3.5	.2	21.3	100.0	9,489
LIBRARIAN	MEN	52.1	8.6	60.7	7.4	4.3	1.8	.0	5.5	.6	19.6	100.0	163
	WOMEN	48.2	9.2	57.4	4.5	2.8	.2	2.7	4.0	.4	28.1	100.0	1,318
	BOTH	48.6	9.1	57.7	4.8	3.0	.3	2.4	4.2	.4	27.2	100.0	1,481
GUIDANCE COUNSELOR	MEN	33.2	11.0	44.2	7.4	3.2	.7	.0	2.5	.5	41.6	100.0	1,694
	WOMEN	38.9	8.6	47.5	5.7	3.1	.1	1.8	2.0	.4	39.5	100.0	1,721
	BOTH	36.0	9.8	45.8	6.5	3.1	.4	.9	2.3	.5	40.5	100.0	3,415
SCHOOL PSYCHOLOGIST	MEN	29.7	8.5	38.2	12.6	9.3	2.4	.0	2.8	2.0	32.5	100.0	246
	WOMEN	37.2	5.5	42.7	13.3	6.9	.0	.9	5.0	1.8	29.4	100.0	218
	BOTH	33.2	7.1	40.3	12.9	8.2	1.3	.4	3.9	1.9	31.0	100.0	464
SCHOOL SOCIAL WORKER	MEN	69.1	5.2	74.2	4.1	.0	1.0	.0	.0	4.1	16.5	100.0	97
	WOMEN	66.7	4.5	71.2	1.5	.0	.0	.0	3.0	7.6	16.7	100.0	66
	BOTH	68.1	4.9	73.0	3.1	.0	.6	.0	1.2	5.5	16.6	100.0	163
SCHOOL NURSE	MEN	43.9	1.2	45.1	4.9	18.3	4.9	.0	2.4	.0	24.4	100.0	82
	WOMEN	33.0	5.6	38.6	13.1	2.2	.0	1.5	1.7	.5	42.4	100.0	594
	BOTH	34.3	5.0	39.3	12.1	4.1	.6	1.3	1.8	.4	40.2	100.0	676
OTHER UNGRADED	MEN	42.2	8.4	50.6	4.0	4.9	.5	.0	1.9	.2	38.0	100.0	1,058
	WOMEN	50.9	8.3	59.2	3.9	6.8	.0	2.6	2.4	.4	24.7	100.0	1,780
	BOTH	47.6	8.4	56.0	3.9	6.1	.2	1.7	2.2	.3	29.6	100.0	2,838
GRAND TOTAL	MEN	39.1	8.9	48.0	8.1	6.6	5.4	.0	6.5	.6	24.9	100.0	79,398
	WOMEN	45.5	9.9	55.5	5.7	4.0	.1	4.1	8.0	.5	22.1	100.0	186,744
	BOTH	43.6	9.6	53.2	6.4	4.7	1.7	2.9	7.6	.5	22.9	100.0	266,142

TABLE 8.–PERCENTS OF TEACHER EDUCATION GRADUATES ENTERING CLASSROOMS IMMEDIATELY FOLLOWING GRADUATION, 1954-1971, BY SUBJECT AREAS

Subject or level	1954	1956	1958	1960	1962	1964	1966	1968	1970	1971
1	2	3	4	5	6	7	8	9	10	11
Elementary school, regular instruction	78.9	80.8	83.3	82.2	82.3	81.2	80.8	78.9	69.1	61.0
High-school subjects:										
Agriculture	41.0	50.6	47.3	47.5	56.2	52.7	45.5	56.8	50.5	46.7
Art[a]	62.6	66.5	70.5	70.5	70.1	66.8	67.2	63.3	55.1	48.0
Business education	58.1	56.2	59.8	60.7	63.3	62.7	65.4	61.4	49.7	47.3
English	67.9	68.4	73.1	73.5	74.7	70.9	71.8	67.1	56.3	48.0
Foreign languages[a]	56.0	62.1	68.9	69.6	72.4	70.0	69.4	62.6	53.8	45.5
Home economics	66.4	65.2	65.3	65.5	65.9	64.7	63.1	63.9	53.4	48.6
Industrial arts	57.1	61.5	68.9	68.6	72.2	73.9	72.8	70.9	64.1	62.6
Journalism	59.3	26.5	56.2	53.2	38.8	60.9	59.5	54.1	42.8	36.3
Library science	85.6	76.8	78.0	77.8	81.8	82.5	69.0	67.5	61.3	57.7
Mathematics	59.0	66.3	75.8	74.2	73.9	74.1	70.8	71.2	65.3	61.1
Music[a]	68.5	68.9	74.5	74.2	72.9	70.1	71.0	68.4	61.9	57.3
Physical education–Men[a]	47.1	60.2	66.1	64.3	69.1	65.7	65.4	66.4	55.9	46.3
Physical education–Women[a]	76.3	78.2	79.5	79.6	84.2	80.3	78.3	73.9	63.5	54.6
General science	52.0	64.2	73.5	71.0	73.5	67.4	69.9	62.4	62.0	51.9
Biology	45.4	58.5	65.0	66.2	68.3	66.7	67.6	67.7	56.2	52.0
Chemistry	36.1	54.3	65.3	64.4	65.0	61.8	60.5	64.3	61.2	53.9
Physics	51.5	47.3	69.6	62.1	66.7	60.1	61.4	64.5	42.9	45.3
Social studies	51.8	59.8	65.2	64.9	64.2	60.5	60.2	58.0	43.7	34.4
Speech and drama	57.8	61.5	69.9	65.9	65.9	61.4	60.5	58.8	46.3	37.3
Total, high-school subjects[b]	55.7	63.2	67.8	68.1	69.2	67.0	66.7	64.7	54.2	48.4
Special education	[c]	[c]	[c]	[c]	[c]	[c]	71.9	69.0	64.6	64.8
Grand total[b]	65.8	70.7	73.7	73.6	74.4	72.7	72.2	70.3	59.7	53.2

[a] Includes persons prepared to teach the subject in elementary schools.
[b] Includes persons prepared for ungraded assignments, and subject matter assignments in elementary schools.
[c] Data not collected for this assigment.

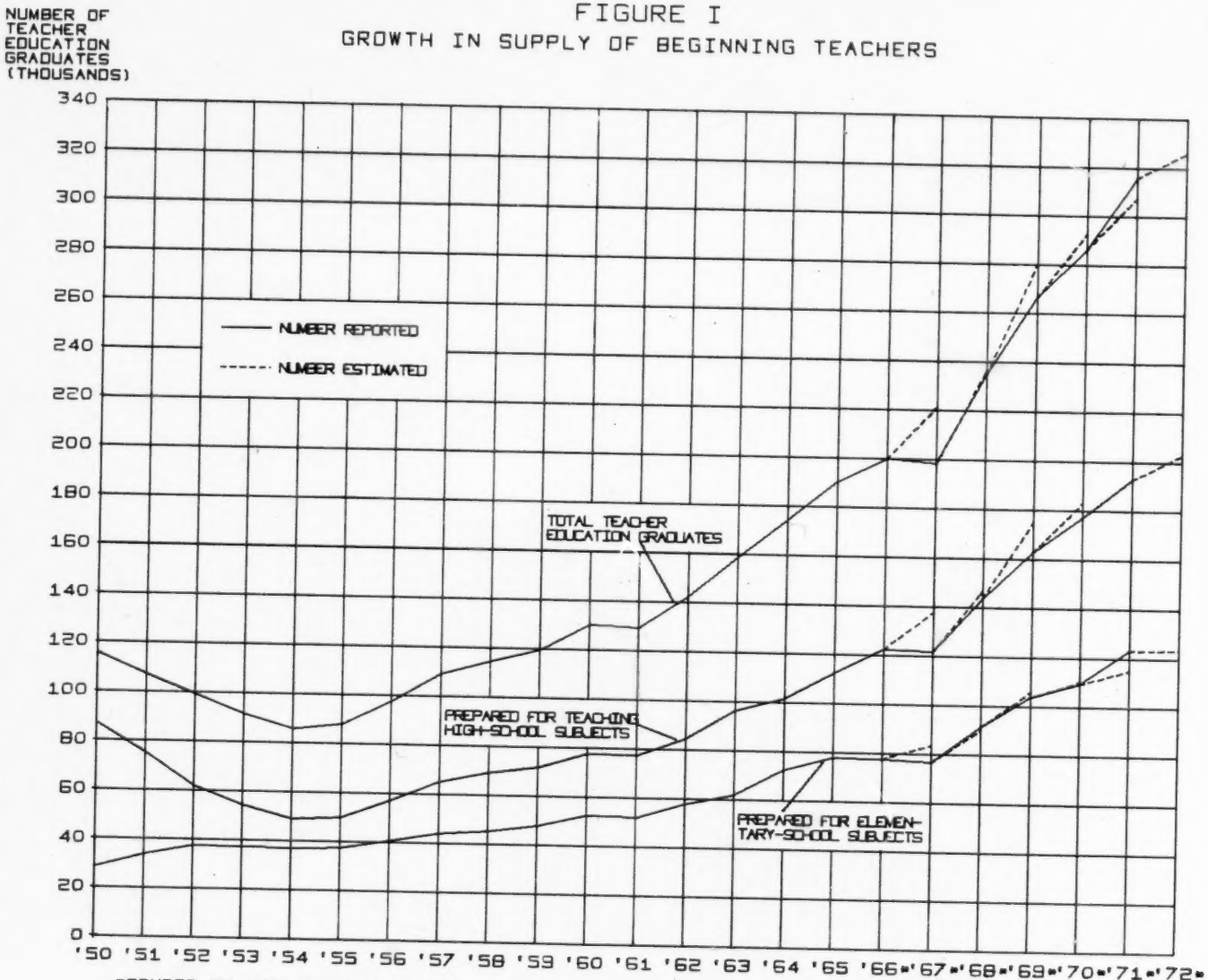
TABLE 9.–ESTIMATE OF THE SUPPLY OF 1972 TEACHER EDUCATION GRADUATES AVAILABLE TO ENTER CLASSROOMS BY NOVEMBER 1, 1972

Level or subject	Number expected to complete preparation	Number available for employment in fall 1972[a]
1	2	3
Elementary school (total)	127,088	105,863
Regular instruction	123,472	102,852
Art	1,003	835
Foreign language	412	343
Music	1,035	862
Physical and health education	1,166	971
Secondary school (total)	182,715	126,438
Agriculture	1,821	1,260
Art	9,095	6,294
Business education	10,651	7,370
Distributive education	951	658
English	27,385	18,950
Journalism	652	451
Speech and dramatic arts	4,971	3,440
Foreign languages (total)	9,555	6,612
Home economics	8,728	6,040
Industrial arts	5,986	4,142
Junior high-school subjects	713	493
Mathematics	12,443	8,611
Music	8,563	5,926
Physical and health education	26,104	18,064
Natural and physical sciences (not specified)	2,277	1,576
General natural and physical sciences	1,537	1,064
Biology	6,606	4,571
Chemestry	1,552	1,074
Physics	803	556
Social studies (total)	38,474	26,624
Trade, industrial, vocational, technical	924	639
Other secondary-school subjects	2,924	2,023
Ungraded		
Special education	14,296	10,900
Librarian	1,937	1,340
Guidance counselor	5,896	4,080
School psychologist	721	499
School social worker	391	271
School nurse	536	371
Other ungraded	4,039	2,795

[a]Based on an entry of 83.3 percent of graduates prepared to teach in elementary grades; 76.2 percent of graduates prepared to teach in special education; 69.2 percent of graduates prepared to teach secondary-school grades and other ungraded assignments.

FIGURE I

GROWTH IN SUPPLY OF BEGINNING TEACHERS



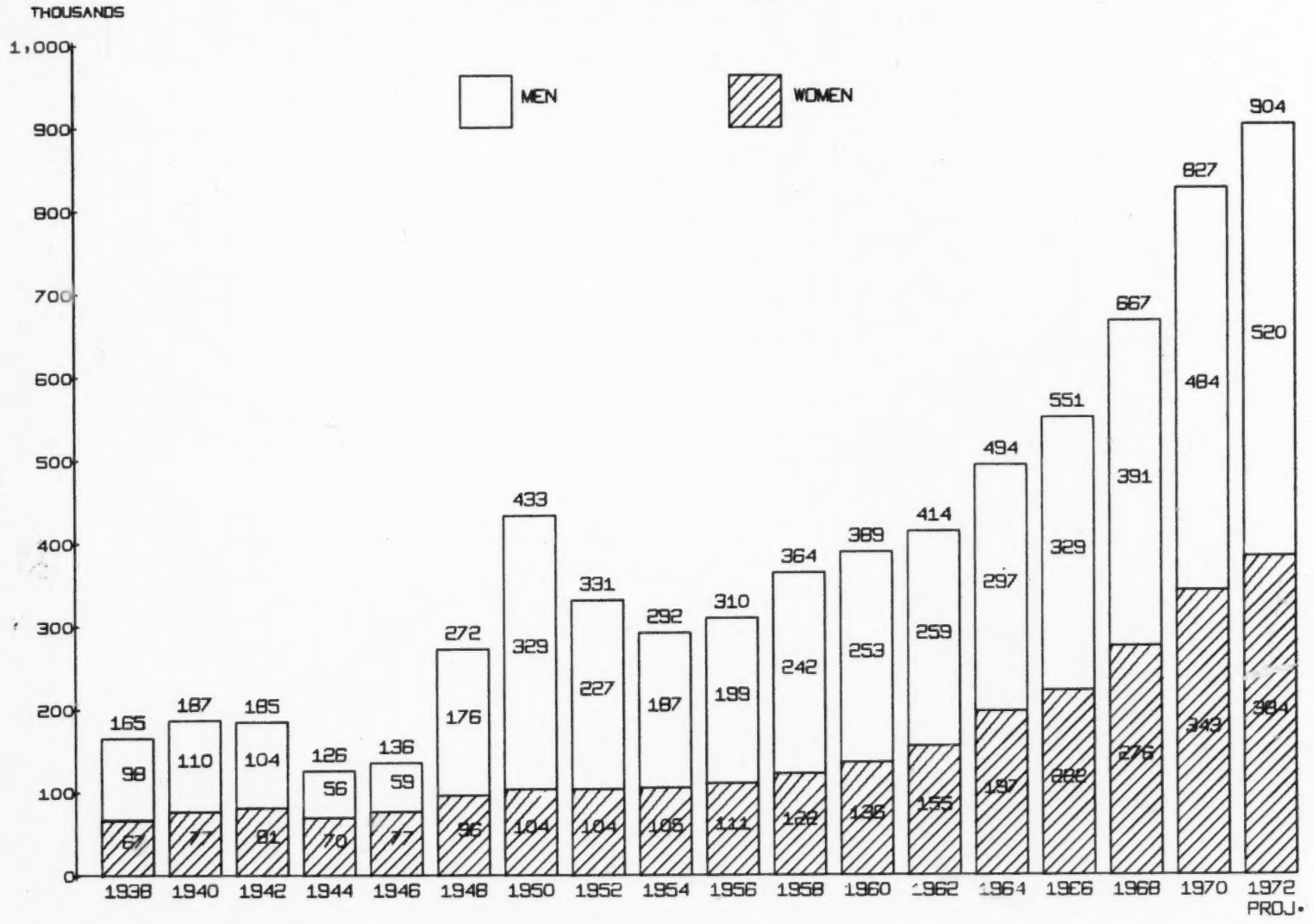
*GROUPED BY AREA OF PREPARATION AS NOTED IN TABLE 2.

**A FEW INSTITUTIONS IN FOUR STATES DID NOT RESPOND IN 1968 MAKING THE ACTUAL NUMBERS REPORTED FOR 1967 LOWER THAN THE NUMBER WHICH PROBABLY GRADUATED THAT YEAR.

NEA RESEARCH DIVISION

FIGURE II

BACHELOR'S AND FIRST PROFESSIONAL DEGREES CONFERRED,
1938 TO 1972 BIENNIALLY



SOURCE -
U.S. OFFICE OF EDUCATION REPORTS AND PROJECTIONS OF EDUCATIONAL STATISTICS TO 1980-81.

NEA RESEARCH DIVISION

23

THE DEMAND FOR NEW TEACHERS

THIS SECTION CONTAINS estimates of the demand for new teachers and the demand for beginning teachers. The separate estimate of the demand for beginning teachers allows comparison with the supply of beginning teachers reviewed in the previous section of this report. Following a review of the difference between the estimated demand for new and beginning teachers are descriptions of two criteria for estimating the demand for new teachers. Finally, this section provides an estimate of the demand for beginning teachers by type of teaching assignment.

Difference Between Demand for New and Demand for Beginning Teachers

A new teacher is a person entering or re-entering active status who was not employed as a full-time teacher during the preceding school year. A beginning teacher is a person entering active employment as a full-time teacher for the first time. Therefore, the estimated demand for new teachers exceeds the demand for beginning teachers by the number of former teachers expected to re-enter teaching this year.

Estimates of the rate of re-entry of former teachers derived from six sampling studies between 1957-58 and 1968-69 range from 3.0 to 4.8 percent at the elementary school level and from 2.5 to 4.2 percent at the secondary school level. The rate of re-entry of former teachers being estimated for 1972 is 3.2 percent in elementary and 3.0 percent in secondary schools. This has been the standard estimate used in this series of studies since the 1967 edition.

Application of these rates to the total number of full-time teachers employed in 1971-72 (1,138,400 in elementary-schools and 951,200 in secondary schools) provides an estimate that 36,400 former elementary-school teachers and 28,500 former secondary-school teachers will re-enter active employment as teachers in fall 1972 following an interruption of at least one year.

An alternate estimate of the demand for experienced teachers to re-enter active employment has been derived from data reported by 20 states. These states reported the proportion of the new teachers employed in 1971-72 who were re-entering after at least one year out of teaching. The information underlying this estimate is reviewed in Tables 13 and 16. This estimate calls for the employment of 26,700 re-entering teachers at the elementary school level and 27,300 at the secondary school level.

Limited information from sampling studies and from the employment rates of 1971 graduates prepared to teach indicates that school systems may be currently filling a larger than normal proportion of their position vacancies with beginning teachers. This would mean that the alternate or lower estimate of the number of re-entering teachers to be employed for 1972-73 may be the more accurate estimate of the numbers which will actually locate employment as teachers.

Criteria for Estimating Demand for New Teachers

Two equally useful estimates of the demand for new teachers are presented in this report. The first shows the demand for teachers related to a minimum standard, the second reviews the demand for teachers related to current practices, including the adjustment of recent trends.

Components of the first estimate are the minimum standards of staffing characteristics required for effective instruction in the public schools. This estimate is based on an assumption that the demand for teachers must be related to achieving at least the minimum level of quality in staffing for public education. The estimate based on this assumption is termed the *Quality Criterion Estimate* (QCE).

The second estimate is based on a continuation of the trends in the improvement of staffing characteristics of public schools in recent years. This second estimate is termed the *Adjusted Trend Criterion Estimate* (ATCE).

The numbers of new teachers required by each criterion for estimating the demand for new teachers in 1972-73 are presented and discussed in the following sections.

The Quality Criterion Estimates

The *Quality Criterion Estimate* is based on the number of new teachers needed to achieve immediately a standard for *minimum* quality in the staffing of public-school classrooms. The following are discussed separately as components of this estimate: (a) the number of new teachers needed to fill new positions being created to accommodate enrollment changes, and to continue trends toward improved staffing; (b) the number of new teachers needed to replace the teachers who are interrupting or terminating their careers; (c) the number of teachers having substandard professional qualifications who need to be upgraded or replaced; (d) the number of new teachers needed to reduce overcrowded classes to reasonable maximum sizes; and (e) the number of new teachers needed to provide adequate staffing of new educational offerings, added special instructional services, and reorganization for instruction.

The *Quality Criterion Estimate* of teacher demand should be useful to the teaching profession, civic leaders, public officials, and research analysts in assessing the manpower requirements for attaining minimum quality in public education. This estimate shows the demand for teachers required by a minimum level of quality in the staffing practices applied to all classrooms without consideration to obstacles to attaining this standard immediately.

The Demand for New Teachers, Based on the Quality Criterion Estimate—Summarized in Table 10 are the estimated numbers of new teachers needed to achieve the *Quality Criterion* in each of several components of teacher demand. The estimated total demand for 968,100 new teachers is an increase of 696,600 positions (33.3 percent) over the number of full-time teachers employed in the fall of 1971. The components of this estimate are described in the following paragraphs.

Increased Enrollment—The U.S. Office of Education has estimated that in fall 1972 the number of full-time and part-time elementary-school teachers in public schools will decrease by 4,000 and secondary-school teachers will enlarge by 27,000. These estimates of staff include an expectation of a continuation of trends toward improved staffing. These estimated changes represent 0.4 percent of the number of full-time elementary-school teachers in fall 1971 (1,138,400), 2.8 percent of the number of full-time secondary-school teachers (951,200), and 1.1 percent of the total number of public-school teachers (2,089,600).

The estimated change in the numbers of full-time public-school teachers (-4,000 in elementary schools and +27,000 in secondary schools) is used in the remainder of this report to calculate the number of new teachers needed to fill new positions created to continue recent trends of staffing improvements as well as to provide instructional services for the enlarged enrollments. Owing to the use of projections of staffing as related to enrollments in recent years, this estimate may reflect a small part of the demand for new teachers estimated separately in some other components.

Teacher Turnover—Earlier studies in this series have used an estimate that the number of positions vacated by teachers who leave the profession each year equals about 8 percent of the total number of teachers. Information from recent studies provided a planning estimate for the 1967 edition of this series. The same rates are used for the 1972 edition (8.1 percent of elementary-school teachers and 8.6 percent of high-school teachers).

Applying these estimates to the number of full-time elementary- and full-time secondary-school teachers in 1971-72 provides the following estimates of demand for new and beginning teachers in fall 1972 to fill positions created by teacher turnover:

Level	Turnover-based demand in 1971-72 for	
	New teachers	Beginning teachers
Elementary school	92,200	55,800
Secondary school	81,800	53,300
Total	174,000	109,100

Replacement of Teachers Having Substandard Qualifications—These estimates are based on an assumption that the minimum educational requirement for qualified teachers is completion of the bachelor's degree and the teachers having less than a bachelor's degree need to be upgraded or replaced. For many of these teachers who lack only one or two years of college this replacement may be on a short-term basis while they return to teacher preparation institutions to complete their degree.

Data from a sample survey of teachers provide an estimate that 3.2 percent of all elementary-school teachers in 1971-72 lacked the bachelor's degree. Applying this percentage to the total number of full-time elementary-school teachers in 1971-72 provides an estimate that 36,429 elementary-school teachers lacked the bachelor's degree. The estimated demand for 29,150 elementary-school teachers allows for about 20 percent of the 36,429 elementary-school teachers lacking the bachelor's degree to have completed the degree re-

TABLE 10.–ESTIMATED DEMAND FOR NEW TEACHERS, BASED ON THE QUALITY CRITERION

Source of demand	Estimated demand for new teachers		
	Elementary	Secondary	Total
1	2	3	4
Staff requirement of increased enrollment	-4,000	27,000	23,000
Teacher turnover	92,200	81,800	174,000
Replacement of teachers having substandard qualifications	29,150	6,100	35,250
Reduction of overcrowded classes	234,900	166,750	401,650
Special instructional services	174,150	160,050	334,200
Total	526,400	441,700	968,100

quirements or to have resigned prior to the 1972-73 session.

A similar procedure was used to estimate the number of secondary-school teachers having substandard qualifications (0.8 percent) and needing to be replaced (80 percent of 7,610 teachers).

Reduction of Overcrowded Classes–A national survey by the NEA Research Division in 1971-72 provides a general estimate of the distribution of class size and teacher load in public schools. These percentage distributions were applied to the total number of full-time teachers in the fall of 1971 to obtain an estimate of the number of persons who may have been assigned extremely large classes during 1971-72.

The intervals in these distributions provide a base for these estimates of the minimum numbers of additional teachers needed to reduce maximum size of classes in elementary schools to no more than 24 pupils each and the maximum average daily teacher load in secondary schools to no more than 124 pupils.

This component of the Quality Criterion has been changed from the standard used in the 1970 edition of this survey (34 pupils in elementary classes and teacher load of no more than 199 pupils in secondary schools).

Special Instructional Services–In this classification are the new teachers needed to provide special instructional services, enlarge the scope of educational offerings, and provide special programs for pupils having special learning needs (physically, mentally, and emotionally handicapped, the culturally disadvantaged, etc.). It is estimated that at least 271,950 additional teachers are needed for this component of demand. It is not feasible to establish an accurate estimate of the demand for new teachers resulting from this component because prescriptive statements of minimum standards and precise data about present conditions are nonexistent or limited.

Minimally, 20,950 new teachers are needed to provide kindergarten for the same proportion of five- and six-year-old children as the proportion of seven-year-olds now enrolled in school. This estimate does not include the number of new teachers needed to replace present kindergarten teachers having substandard qualifications, to replace present kindergarten teachers who interrupt or terminate their careers, or to provide improvement of the teacher-pupil ratio at this level of instruction.

At least 6,000 new teachers are needed to enlarge offerings in elementary and secondary schools which have curtailed their programs of instruction because of financial limitations or because they have been unable to locate qualified teachers. The 1,000 additional teachers estimated for elementary schools represents a small proportion of the number needed to off-set program cut-backs between 1969 and 1972. Estimates from a sampling of school systems show more than 1,800 incidences of the following elementary-school offerings having been *discontinued* for financial reasons: art, foreign language, home economics, industrial arts, music, physical and health education, remedial reading, and/or science. The 5,000 additional teachers needed at the secondary school level would support the restoration of programs in some of the more than 1,300 incidences of school systems reporting that because of financial limitations they have *eliminated* their offerings in agriculture, art, driver education, foreign languages, home economics, industrial arts, music, reading, and/or vocational office training. The 5,000 secondary-school teachers would be needed also to fill some of the positions which should be created to provide offerings to students in the one-tenth or more of public school systems which *do not have* courses in vocational school-job programs, remedial reading, art, secretarial skills, and/or industrial arts.

At least 62,250 new teachers are needed to reduce the impact of misassignment of teachers in elementary and secondary schools. These represent 90 percent of the estimated 69,160 teachers in 1971-72 who were teaching full time in an assignment which is different from their major field of

professional preparation. In addition, 78,450 new teachers would be needed to replace half of the teachers who were teaching outside their major field of professional preparation 50 to 99 percent of their time.

At least 245,000 new teachers are needed to provide special education to all school-age children and youth who require it. This estimate does not include the 60,000 additional teachers needed to extend quality special education services to preschool children. These estimates do not include the number of new teachers needed to replace present special education teachers having substandard preparation.

Estimated Demand for Beginning Teachers Based on the Quality Criterion—Listed below are the estimated numbers of new and beginning teachers needed to achieve the demand based on the *Quality Criterion Estimate.*

	Number of teachers		
	Elementary	Secondary	Total
Demand for new teachers based on the Quality Criterion Estimate	526,400	441,700	968,100
Expected re-entry of former teachers	36,400	28,500	64,900
Demand for beginning teachers	490,000	413,200	903,200

The Adjusted Trend Criterion Estimates

The *Adjusted Trend Criterion* provides an estimate of the number of new teachers who will actually be employed by public school systems in the school year 1972-73 as indicated by recent staffing practices. This estimate is projected from information about the numbers of new teachers employed in recent years. The demand for new teachers in this estimate reflects a continuation of current trends toward improved staffing conditions rather than immediate achievement of the standards of minimum quality in the staffing of classrooms provided by the *Quality Criterion Estimate.*

The projections based on the *Adjusted Trend Criterion* should be especially useful to college and university counselors of potential teachers, to individuals planning careers in teaching, to former teachers considering re-entry into teaching, and to educational leaders. This projection provides an estimate of the immediate condition of the demand for teachers—the minimum number of employment opportunities for beginning and re-entering teachers during the school year 1972-73.

The Demand for New Teachers, Based on the Adjusted Trend Criterion Estimate—Estimates of the number of teaching positions to be filled by the supply of new teachers for the opening of a given school session may be based on trends observed in two components reviewed earlier: (a) positions being created or eliminated as a result of changes in enrollment, organization for instruction, and in the pupil-teacher ratio; and (b) positions created by the teachers who are interrupting or terminating their careers in the public schools during or at the close of the school year. These are the first two components of the *Quality Criterion Estimate* listed in Table 10.

Combination of the estimates from the two components of demand reviewed above provides an estimate that the number of new teachers for whom employment is virtually assured in 1972-73 is 88,200 in elementary schools and 108,800 in secondary schools. These estimates include the demand for 51,800 beginning teachers in elementary schools and 80,300 beginning teachers in secondary schools.

The trends in demand for qualified public-school teachers for a given school year may be changed as a result of changes in various factors such as the following:

- Major modification in the school program and assignment load of teachers
- Enrollment growth related to enlarged educational programs
- Reduction in the ratio of pupils per teacher to provide special programs being encouraged through federal and state legislation
- Change in the rate by which persons having substandard qualifications are being replaced
- Elimination of large classes.

Some of these conditions have been influencing the demand for new teachers during the past several years. The trends in staffing practices observed in the past are included in the data used to derive the estimates of teacher demand based on the *Adjusted Trend Criterion.*

Summary of the Estimates of Demand for New Teachers

Listed below are the total numbers of new teachers who will be needed in the fall of 1972 as

determined by the two criteria. An estimate of the demand for beginning teachers may be obtained by subtracting the 36,400 elementary and 28,500 secondary-school teachers expected to re-enter the profession.

Base	Number of new teachers in demand for fall 1972		
	Elementary	Secondary	Total
Adjusted Trend Criterion Estimate	88,200	108,800	197,000
Quality Criterion Estimate	526,400	441,700	968,100

Characteristics of Demand for New Teachers as Suggested by Assignments in Selected States

Varying numbers of states have reported number of new teachers employed and their assignments as part of the past 24 surveys of teacher supply and demand. (These included experienced teachers returning to the classroom as well as the beginning teachers.) For recent studies the states were asked also to report for each assignment the total numbers of teachers and the number of new teachers who are re-entering active service following an interruption of at least one year. The summary of information from the the states which were able to report data for 1971-72 is provided in Table 11.

The distribution of the new teachers among teaching assignments in 1971-72 provides an estimate of the comparative demand between elementary- and high-school levels and among selected assignment areas. As in earlier studies of this series, a general estimate of the 1972-73 demand for new teachers in each subject is projected by applying the percentage distribution of new teachers reported last year to the total estimated demand for new teachers this year.

Several states reported additional information about the percent of the total number of teachers in each assignment who were new teachers, and the percent of new teachers who are re-entering teachers. This information provides the source for an alternate estimate of the number of new and beginning teachers to be employed in 1972-73.

Relative Demand for New Teachers Among High-School Subjects, Adjusted Trend Criterion Estimate

The distribution of new teachers among the assignments reported by 25 states provides the basis for an estimate of the number of new teachers needed in each assignment in 1972-73. Summarized in column 2 of Table 12 are the numbers of new teachers which will be employed in each assignment in 1972-73 if the percentage distribution of new teachers observed last session in 25 states is projected to the estimated total number of new teachers to be employed in 1972-73.

The basis for an alternate estimate of the 1972-73 demand for new teachers in each assignment is provided by additional information reported for the sixth time in the present study. The reports of several states contained one or more of the following data by each teaching assignment: The total number of teachers, the number of new teachers, and the number of new teachers who were re-entering active status in 1971-72 following an interruption of at least one year. This additional information allows an estimate of the demand for new teachers for each assignment separately, based on information which reflects the combined influence of growth in total number of persons and the rate of teacher turnover.

Only 19 states were able to supply the total numbers of teachers in each assignment area. To allow correction for the likelihood that the summary distribution from these states is not representative of the national pattern, an estimate of the distribution of all teachers by assignment areas was derived by using information from NEA Research Division sampling studies conducted during the past seven years.

Listed in column 4 of Table 11 are the medians of the percents of the staff in each major assignment who were new teachers in the reporting states. The percents varied widely among the reporting states. The variation of these rates among the reporting states suggests that the median percent does not provide a precise estimate—that the numbers of new teachers projected from these data should be interpreted only in very general terms.

The estimates shown in column 4 of Table 11 list the percents of total staff represented by new teachers observed when the total number of teachers increased by 0.7 percent in elementary schools and by 2.1 percent in secondary schools. The projected growth in total number of teachers between 1971-72 and 1972-73 is estimated to be minus 0.4 percent in elementary schools and plus 2.8 percent in secondary schools. The total demand for new teachers in 1971-72 (for both staff enlargement and turnover) represented 8.8 percent of the 1971-72 staff in elementary schools and 10.5 percent of the 1971-72 staff in secondary schools. The projected total demand for new teachers in 1972-73 represents 7.8 percent of the 1972-73

TABLE 11.–NUMBER AND PERCENT OF NEW TEACHERS, PERCENT OF STAFF WHO WERE NEW TEACHERS, AND PERCENT OF NEW TEACHERS WHO RE-ENTERED IN 1971-72, BY ASSIGNMENT

Assignment	Number of new teachers, 25 states	Percent distribution of new teachers, 25 states	Median percent of staff who were new teachers, 19 states	Median percent of new teachers who were re-entering, 20 states
1	2	3	4	5
ELEMENTARY				
Regular instruction	42,458	85.0	11.3	23.1
Selected subjects				
Art	977[a]	2.0[a]	17.2[b]	17.8[c]
Foreign language	104[d]	0.2[d]	15.5[e]	20.0[f]
Music	1,435[a]	2.9[a]	14.2[b]	28.4[c]
Physical and health education	1,599[a]	3.2[a]	17.7[b]	22.5[b]
Special education	3,375[g]	6.7[g]	18.6[f]	19.8
Total classroom instruction	49,948	100.0	...	...
Librarian	646[h]	...	8.0[f]	40.0[f]
Guidance counselor	186[a]	...	4.8[f]	66.7[f]
SECONDARY				
Agriculture	606[h]	1.2[h]	11.9[f]	20.0[i]
Art	1,623	3.2	16.2	18.2[i]
Business education	2,712	5.4	10.4	27.6[i]
Distributive education	282[i]	0.6[i]	16.0[e]	25.0[b]
English language arts	9,278	18.5	11.2	22.4
Foreign language (total)	2,113	4.2	13.3	24.6[i]
Home economics	2,301	4.6	12.9	21.2[i]
Industrial arts	2,007	4.0	10.7	22.0[i]
Mathematics	6,101	12.1	11.4	20.2
Music	2,074	4.1	10.6	28.1[i]
Physical and health education (total)	(4,219)	(8.4)	(10.5)	(12.9)
Men	2,008[j]	4.0[j]	9.0[k]	25.3[l]
Women	2,211[j]	4.4[j]	14.0[k]	27.6[m]
Natural and physical sciences (total)	4,497	9.0	11.0	24.6
Social studies (total)	5,807	11.6	10.4	23.4
Trade, industrial, vocational, technical	1,492[g]	3.0[g]	11.6[n]	16.7[i]
Special education	3,016[g]	6.0[g]	14.9[f]	16.8[n]
Other secondary subjects	2,093[h]	4.1[h]	9.3[n]	30.4[n]
Total classroom instruction	50,221	100.0	...	...
Librarian	943	...	8.9	32.5[i]
Guidance counselor	766	...	3.9	53.8[i]

[a]Information from 22 states. [b]Information from 15 states. [c]Information from 16 states. [d]Information from 20 states. [e]Information from 14 states. [f]Information from 17 states. [g]Information from 24 states. [h]Information from 23 states. [i]Information from 19 states. [j]Projected from information reported by 14 states. [k]Information from 10 states. [l]Information from 12 states. [m]Information from 13 states. [n]Information from 18 states. 500 new teachers in junior high school subjects reported by 13 states were distributed equally among English, mathematics, sciences, and social studies.

TABLE 12.–SUMMARY OF TWO ADJUSTED TREND CRITERION ESTIMATES OF THE DEMAND FOR NEW TEACHERS IN 1972-73

Assignment	Projected total 1972-73 demand distributed as reported by 25 states in 1971-72	Projection of total demand based on the relation of new staff to total staff in assignment in 1972-73 on basis of estimated total staff distribution from national sampling studies
1	2	3
ELEMENTARY (total)	(88,200)	(115,623)
Regular instruction	74,970	108,789
Selected subjects		
Art	1,764	868
Foreign languages	176	313
Music	2,558	1,858
Physical and health education	2,822	2,672
Special education	5,910	1,123
SECONDARY (total)	(108,800)	(118,200)
Agriculture	1,306	1,118
Art	3,482	4,206
Business education	5,875	5,863
Distributive education	653	1,013
English language arts	20,128	23,630
Foreign languages	4,570	6,945
Home economics	5,005	5,629
Industrial arts	4,352	5,353
Mathematics	13,165	16,571
Music	4,461	4,311
Physical and health education:		
Men	4,352[a]	4,508[b]
Women	4,787[a]	5,247[b]
Natural and physical sciences .	9,792	14,421
Social sciences	12,621	16,178
Trade, industrial, vocational ..	3,264	1,674
Special education	6,528	1,244
Other subjects	4,459	289

[a]Projected from information reported by 14 states.
[b]Projected from information reported by 10 states.

staff in elementary schools and 11.1 percent of the 1972-73 staff in secondary schools. The ratio of the percent of 1972-73 staff represented by the estimated demand for new teachers in 1972-73, to the percent of the 1971-72 staff represented by the demand for new teachers in 1971-72 was 0.888 at the elementary level and 1.064 at the secondary level. The projected percents of 1972-73 staff in each subject who will be new teachers were derived by applying these ratios to the percents of staff in the subject who were new teachers in 1971-72.

This procedure does not provide for change in the relative rates of growth among the teaching assignments. Additional information about such variation is needed to allow further correction of the projection of teacher demand.

The projected percent of staff expected to be new teachers in 1972-73 was applied to the estimated total number of teachers in each assignment in 1972-73, and the resulting estimate of the demand for new teachers is listed in column 2.

The information in column 2 of Table 12 provides an estimate which is consistent in method of calculation with those used in earlier reports of this series. The estimate in column 3 of Table 12 is used throughout the remainder of this study as an

alternate estimate of the demand for new teachers in 1972-73.

Estimated Demand for Beginning Teachers

The numbers of teachers who may be expected to re-enter active employment following an interruption of at least one year influence the demand for beginning teachers. The rate of re-entry in 1972-73 in elementary- and secondary-school assignments is estimated to be 3.2 percent of all elementary-school teachers and 3.0 percent of all secondary-school teachers in 1971-72; the same rates were estimated last year. The estimated demand for beginning teachers based on an assumption that the total numbers of re-entering teachers are distributed among the assignments on the same basis as the total number of new teachers, as has been the practice in earlier studies of this series, is listed in column 3 of Table 16.

Information from 20 states reporting both the number of new teachers and the number of re-entering teachers in 1971-72 in each assignment provides the base for an alternate estimate of the demand for beginning teachers which allows for the possibility of differences among the assignments in the rate of re-entry of qualified former teachers. The estimate listed in column 4 of Table 16 results from applying the median percent of new teachers who were re-entering (listed in column 5 of Table 11) to the estimated demand for new teachers (listed in Table 12, column 3).

SUPPLY COMPARED WITH DEMAND FOR NEW TEACHERS

ESTIMATES OF THE SUPPLY of teacher education graduates prepared to enter teaching positions in 1972 and estimates of the number of teaching positions to be filled by these graduates have been presented. A comparison of the numbers of positions included in these estimates provides a general indication of the adequacy of the present supply of beginning teachers and identifies the fields of specialization in which the estimated number of beginning teachers in supply and demand are out of balance. Also provided in this section are estimates of the status of the current supply of beginning teachers as compared with conditions in earlier years.

Supply of Graduates Compared with Demand

The number of new teachers employed and the number of graduates of teacher preparation programs in the reporting states provide an estimate of the status of the supply compared with demand based on the *Adjusted Trend Criterion.*

Information about the number of new teachers in 1971-72 and their assignments reported by 25 states was summarized in Table 11 in the preceding section. The total numbers of new teachers and the numbers of persons completing teacher education programs in 25 states in 1971 are listed in Table 13. Caution should be used in analyzing the data contained in Table 13 since the number of prospective teachers being educated in a given state may not represent the actual supply of beginning teachers for the state because of nonresident graduates and migration of resident graduates. Also limiting the accuracy of comparisons based on these figures is the possibility that experienced former teachers may be in greater supply, or demand, in some subjects than in others. This would modify the estimated relative demand for beginning teachers to fill the positions listed as being filled by new teachers.

Table 13 shows that for these 25 states the area in which the supply of beginning teachers is least adequate is the trade-industrial-vocational subjects. If the entire class of teacher education graduates in these 25 states entered teaching, the supply of *beginning* teachers in these subjects would not equal the demand for *new* teachers. The limited information about supply and demand for assignments in elementary-school selected subjects, special education and librarians suggests that these have an inadequate supply. However, the limitations in the availability of data about these assignments require that the results be interpreted with caution.

Trends in Supply and Demand in Reporting states

Information in Table 14 provides an estimate of trends in supply and demand conditions as observed in the reporting states in four-year intervals since 1948-49. The composition of the participating group changes each year; this reduces the validity of comparisons over the years. The table shows that in the participating states the supply of qualified beginning elementary-school teachers has increased recently to exceed the number of new teachers employed. Mathematics teachers, who comprise about 12 percent of the high-school teachers, also have consistently been in relatively low supply in these selected years, but the number of graduates now is almost as large as the number of new teachers employed. The sciences, involving about 9 percent of new teachers, have been in relatively short supply, but this condition has changed. In each of the assignments for which reasonably accurate data are available, the information in Table 14 shows the recent change from annual estimates of shortages to an estimate of a generally adequate supply for 1971-72.

Supply of Beginning Teachers Compared with Total Number of Teachers Employed

An estimate of the present status of teacher supply and demand may be provided by a comparison over several years between the number of prospective teachers being graduated and the total number of teachers employed. Allowance should be made for changes in the influence of annual growth of the teaching staff and differences in the proportion of teachers leaving the profession. Normally the proportion of the total number of teach-

TABLE 13.–COMPARISON OF THE TOTAL NUMBER OF TEACHER EDUCATION GRADUATES WITH THE NUMBER OF NEW TEACHERS EMPLOYED IN 25 STATES, 1971-72

Subject	Total number of teacher education graduates	Number of new teachers employed	Difference	Number of teacher education graduates as percent of new teachers employed
1	2	3	4	5
ELEMENTARY (total)	(58,005)	(49,948)	(8,057)	(116.1)
Regular instruction	53,932	42,458	11,474	127.0
Selected subjects:				
Art	454	977	−523	46.5
Foreign languages	176	104	72	169.2
Music	520	1,435	−915	36.2
Physical and health education	601	1,599	−998	37.6
Special education	2,322	3,375	−1,053	68.8
SECONDARY (total)	(85,772)	(50,221)	(35,551)	(170.8)
Agriculture	1,084	606	478	178.9
Art	3,784	1,623	2,161	233.1
Business education	5,432	2,712	2,720	200.3
Distributive education	309	282	27	109.6
English language arts (total)	15,218	9,278	5,940	164.0
Foreign language (total	4,202	2,113	2,089	198.9
Home economics	4,842	2,301	2,541	210.4
Industrial arts	2,512	2,007	505	125.2
Mathematics	5,671	6,101	−430	93.0
Music	4,073	2,074	1,999	196.4
Physical and health education:				
Men	6,929	2,008	4,921	345.1
Women	4,607	2,211	2,396	208.4
Natural and physical sciences (total)	5,567	4,497	1,070	123.8
Social sciences (total)	17,387	5,807	11,580	299.4
Trade, industrial, vocational, technical	379	1,492	−1,113	25.4
Special education	2,369	3,016	−647	78.5
Other secondary subjects	1,407	2,093	−686	67.2
UNGRADED (total)	(3,263)	(2,541)	(722)	(128.4)
Librarian	939	1,589	−650	59.1
Guidance counselor	2,324	952	1,372	244.1

ers represented by the number of graduates completing teacher education would not be expected to vary widely if the new supply is keeping pace with demand for teachers.

Shown in Table 15 are the percents of the total number of teachers represented by the number of teacher education graduates ready for entry each year since 1955-56. During these years of marked growth in the size of the total staff, the number of prospective teachers has represented a gradually increasing proportion of the total staff size. A slight moderation in this proportion occurred at the high-school level in 1961-62, a year having a marked increase in the growth of the secondary-school staff. The proportions reached record levels in 1968-69 and have established new records each succeeding year.

Supply of New Teachers Compared with Demand (QCE)

The estimated total supply of new teachers compared with the estimated total demand for new teachers based on the Quality Criterion is shown as follows:

	Number of new teachers		
	Elementary	Secondary	Total
Estimated demand (Quality Criterion)	526,400	441,700	968,100
Estimated supply*	148,200	159,900	308,100
Shortage	378,200	281,800	660,000

*Re-entry of former teachers equal to 3.2 percent of the number of full-time elementary- and 3.0 percent of the number of full-time secondary-school teachers in fall 1971. Entry into teaching by 83.3 percent of graduates prepared to teach at the elementary-school level and by 69.2 percent of graduates prepared to teach at the secondary-school level. Supply in special education apportioned between elementary and secondary.

The estimate shows a shortage of 660,000 teachers. It is difficult to estimate the number of qualified teachers who may be available for entry in the event that schools were financially able and had the facilities to employ the 968,100 persons estimated in the demand for new teachers. Therefore, this estimated shortage should be interpreted only in general terms.

Supply Compared with Demand (ATCE) for Beginning Teachers

A very general estimate of the status of teacher supply and demand in 25 states in 1971 is provided

TABLE 14.–TEACHER EDUCATION GRADUATES AS PERCENT OF NEW TEACHERS EMPLOYED IN SELECTED STATES, 4-YEAR INTERVALS BETWEEN 1948-49 AND 1968-69, AND IN 1971-72

Level and subject	Percent of new teachers represented by number of teacher education graduates						
	1948-49	1952-53	1956-57	1960-61	1964-65	1968-69	1971-72
1	2	3	4	5	6	7	8
ELEMENTARY (total)	29.7	55.6	48.0	58.2	70.3	88.5	116.1
SECONDARY-SCHOOL SUBJECTS (total	111.7	131.7	111.4	119.1	131.3	126.0	168.7
Agriculture	136.6	163.8	163.9	184.3	176.8	195.8	178.9
Art	117.1	264.5	139.5	154.4	165.4	140.9	233.1
Business Education	103.3	147.1	134.2	158.5	168.7	190.2	200.3
English	95.8	105.9	73.0	73.7	95.9	119.6	164.0
Foreign languages	171.1	213.3	120.1	76.1	106.6	140.6	198.9
Home economics	114.6	137.9	128.3	141.7	170.6	180.3	210.4
Industrial arts	103.9	166.5	123.5	169.0	121.3	150.9	125.2
Journalism	103.3	82.1	78.4	59.2	93.8	[a]	[a]
Library science	65.5	69.6	35.0	27.9	39.1	170.0	59.1
Mathematics	73.6	108.8	58.2	73.1	79.6	79.1	93.0
Music	105.9	164.9	127.2	174.5	171.0	170.1	196.4
Physical education–men	148.1	278.9	185.0	286.0	283.0	206.7	345.1
Physical education–women	138.6	169.6	126.3	117.0	128.7		208.4
General science	62.3	79.4	54.8	67.8	50.7		
Biology	114.8	270.9	199.3	143.3	246.2	87.3	123.8
Chemistry	135.9	200.0	107.8	107.3	112.2		
Physics	65.1	120.1	80.2	79.3	119.0		
Social studies	157.1	207.3	164.1	153.1	186.4	175.6	299.4
Speech	126.2	313.8	256.9	260.8	469.5	[a]	[a]
Other (special education, junior high school, vocational, distributive education, guidance)	...	246.7	40.8	73.6	87.0	45.8	86.6
Number of states reporting	21	26+ Alaska Hawaii D.C.	32+ Alaska D.C.	26+ D.C.	27+ D.C.	23+ D.C.	25

[a]Included with English.

TABLE 15.–ESTIMATES OF THE TOTAL NUMBER OF PUBLIC-SCHOOL TEACHERS AND THE NUMBER OF TEACHER EDUCATION GRADUATES READY FOR EMPLOYMENT EACH YEAR SINCE 1955-56

Session	Elementary			Secondary		
	Total teachers	Teacher education graduates of previous year		Total teachers	Teacher education graduates of previous year	
		Number	Percent of total		Number	Percent of total
1	2	3	4	5	6	7
1955-56	783,000	37,712	5.1	408,000	49,697	12.2
1956-57	751,000	40,801	5.4	447,000	56,785	12.7
1957-58	786,000	44,029	5.6	473,000	65,062	13.8
1958-59	815,000	45,318	5.3	491,000	69,093	14.1
1959-60	832,000	47,836	5.7	524,000	71,585	13.7
1960-61	858,000	52,630	6.1	550,000	77,573	14.1
1961-62	869,000	51,866	6.0	592,000	77,322	13.1
1962-63	886,000	57,854	6.5	621,000	84,489	13.6
1963-64	908,000	61,979	6.8	669,000	96,378	14.4
1964-65	940,000	72,581	7.7	708,000	101,552	14.3
1965-66	965,000	77,773	8.1	746,000	112,436	15.1
1966-67	1,006,000	77,703[a]	7.7	783,000	122,208[a]	15.6
1967-68	1,040,000	76,607[a/b]	7.4	815,000	121,554[a/b]	14.9
1968-69	1,076,000	91,336[a]	8.5	860,000	143,611[a]	16.7
1969-70	1,108,000	103,654[a]	9.4	906,000	162,607[a]	17.9
1970-71	1,132,000	109,265[a]	9.7	929,000	181,494[a]	19.5
1971-72	1,138,000	123,055[a]	10.8	925,000	198,081[a]	21.4
1972-73	1,134,000	123,472[a]	10.9	952,000	208,460[a]	21.9

Source of staff size: U.S. Department of Health, Education, and Welfare, Office of Education. *Projections of Educational Statistics to 1980-81.* Washington, D.C.: Government Printing Office, 1972. Table 26. With revised estimate for 1971-72 and projection for 1972-73. (Fall staff size includes number of part-time teachers.)

[a]Persons prepared to teach specific subjects, librarians, and guidance counselors are classified as secondary, consistent with practice in earlier years. Persons prepared to enter employment as school psychologists, school social workers, school nurses, and other ungraded assignments are not included.

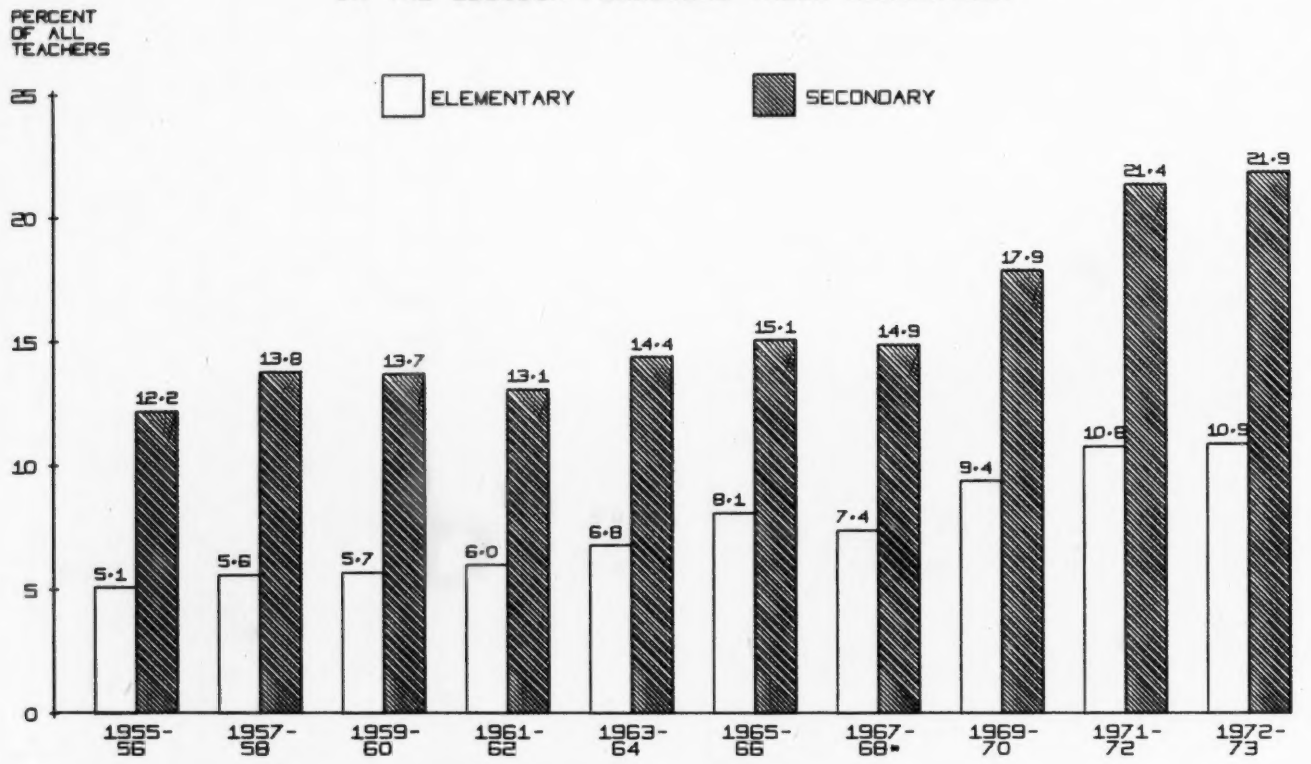
[b]Estimate may be from 2 to 6 percent lower than actual numbers owing to incomplete reports in two states.

in Tables 13 and 14. The problem of nonresident enrollments and migration has reduced the precision of estimates of the supply of beginning teachers for this group of states. If it is assumed that the reporting states are representative of the nation in the pattern of demand for new teachers among the subject fields, this pattern may be used with the national estimated demand for beginning teachers to obtain a national estimate of demand which is comparable with the national summary of the supply of beginning teachers by subject areas.

Listed in Table 16 are the estimated numbers of beginning teachers who will be available for entry into classrooms in fall 1972, the estimated demand for beginning teachers, the difference between the estimated supply and the estimated demand for beginning teachers, and the estimated number of former teachers expected to return to classrooms in fall 1972. The estimates of demand are based on the *Adjusted Trend Criterion* which projects the actual number of positions to be filled in fall 1972. The differences listed in columns 5 and 6 show the adequacy of the 1972 supply of beginning teachers in each assignment. The estimates in columns 3 and 5 are based on an assumption that the average rates of teacher turnover and

FIGURE III

TEACHER EDUCATION GRADUATES AS PERCENT OF ALL TEACHERS IN THE SESSION FOLLOWING THEIR GRADUATION



*A FEW TEACHER PREPARATION INSTITUTIONS IN TWO STATES DID NOT PARTICIPATE IN THE 1967-68 STUDY, MAKING THE ESTIMATED NUMBER OF GRADUATES IN 1967 FROM 2 TO 6 PERCENT LOWER THAN THE PROJECTED ACTUAL DATA.

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re-entry are equally applicable among the subject areas. In subjects in which the rate of teacher separation is about average and the re-entry rate is lower than average, the demand for beginning teachers would be greater than the level estimated. For example, the supply of qualified personnel in the pool of former teachers may not be as adequate in some subjects as in others. In the subjects having a relatively light supply of qualified former teachers the demand for beginning teachers would be increased.

Also, changes in the general status of employment opportunities for persons having the college degree may influence the turnover and re-entry rate observed in earlier years. The reduced availability of positions in other occupations may decrease the loss to the profession of teachers currently employed as well as increase the number of former teachers who may be considering re-entry into the profession. This general economic condition may decrease the demand for beginning teachers below the levels estimated in both column 3 and column 4 of Table 16. The numbers of former teachers expected to re-enter classrooms in fall 1972 following an interruption of at least one year are listed in columns 7 and 8 of Table 16. These show the estimated additional numbers of beginning teachers which would be needed if no former teachers re-entered classrooms in fall 1972.

The range of error in the information and in the assumptions leading to these estimates of supply and demand for beginning teachers requires that the numerical data be interpreted only in general terms. Therefore, the numerical differences provide only a suggestion of the comparative impact of supply and demand conditions in the various subject areas.

A summary of the ranked placement of the subject areas of teacher preparation in terms of the estimated condition of the supply and demand for beginning teachers is given in Table 17. The estimate of general condition is based on a combination of the information listed in columns 2-6.

The numerical differences between the estimated supply and the two estimates of the demand for beginning teachers (columns 2 and 3) show the condition of each assignment if the factors related to supply and demand operate as reported last year. The enlargement, rate of teacher turnover, and extent of re-entry of staff were influenced by some shortages in 1971 as well as continuation of the chronic shortages of qualified persons in several assignments. Possibly the pattern of the numbers of new teachers in the assignments would have been different if the supply of beginning teachers were more than adequate for each assignment.

The percent of qualified graduates entering the profession last year (column 4) provides an indication of the relative supply-demand condition among the assignments as well as a view of possible availability of qualified persons from earlier graduating classes. The size of these pools of qualified beginning teachers may be least adequate in the subject areas having the highest proportions of graduates entering the profession immediately subsequent to their graduation. The reduction in recent years of the entry rate of graduates prepared to teach suggests that these pools are enlarging at an accelerated rate.

The additional supply of beginning teachers from the 1972 graduating class if 80.0 percent of the graduates enter teaching (column 5) shows an estimate of the potential supply which may be tapped, if attractive positions are open. The rate projected, 80.0 percent, is above the average reported for all teacher education graduates in recent years; but is lower than that observed among graduates prepared to enter elementary-school assignments during periods of shortage. It is assumed that this rate may be attained among graduates prepared for any assignment if employment opportunities are available and attractive.

The information in column 6 shows the additional demand for beginning teachers which could result from a change in the estimated re-entry rate of former teachers. The reduction of 25 percent in the estimated re-entry rate would deepen the shortage of beginning mathematics teachers by about 862 persons. This and the relatively small numbers involved in the other assignments provide a basis for interpreting the significance of the estimated numerical comparison of the supply and demand for beginning teachers. The estimate in column 6 is related to the numerical estimate in column 2 in that both are based on the assumption that the rate of re-entry of former teachers is the same for each teaching assignment.

The summary in column 7 of Table 17 shows that based on the *Adjusted Trend Criterion Estimates* of demand the shortage of new teachers is continuing in mathematics and in trade-industrial-vocational-technical subjects. Limited supply compared with demand is estimated in the total natural and physical sciences and in industrial arts. The supply is estimated to be equal to the demand in special education and in distributive education. Comparisons based on limited information suggest that the supply of beginning teachers is not as large as needed in subject-area assignments in elementary schools. Local shortages may be observed in other assignments despite the estimate of adequate supply for beginning teachers in these fields.

FIGURE IV

SUPPLY AND DEMAND FOR BEGINNING TEACHERS, BY TYPE OF ASSIGNMENT, ADJUSTED TREND CRITERION ESTIMATE, 1972

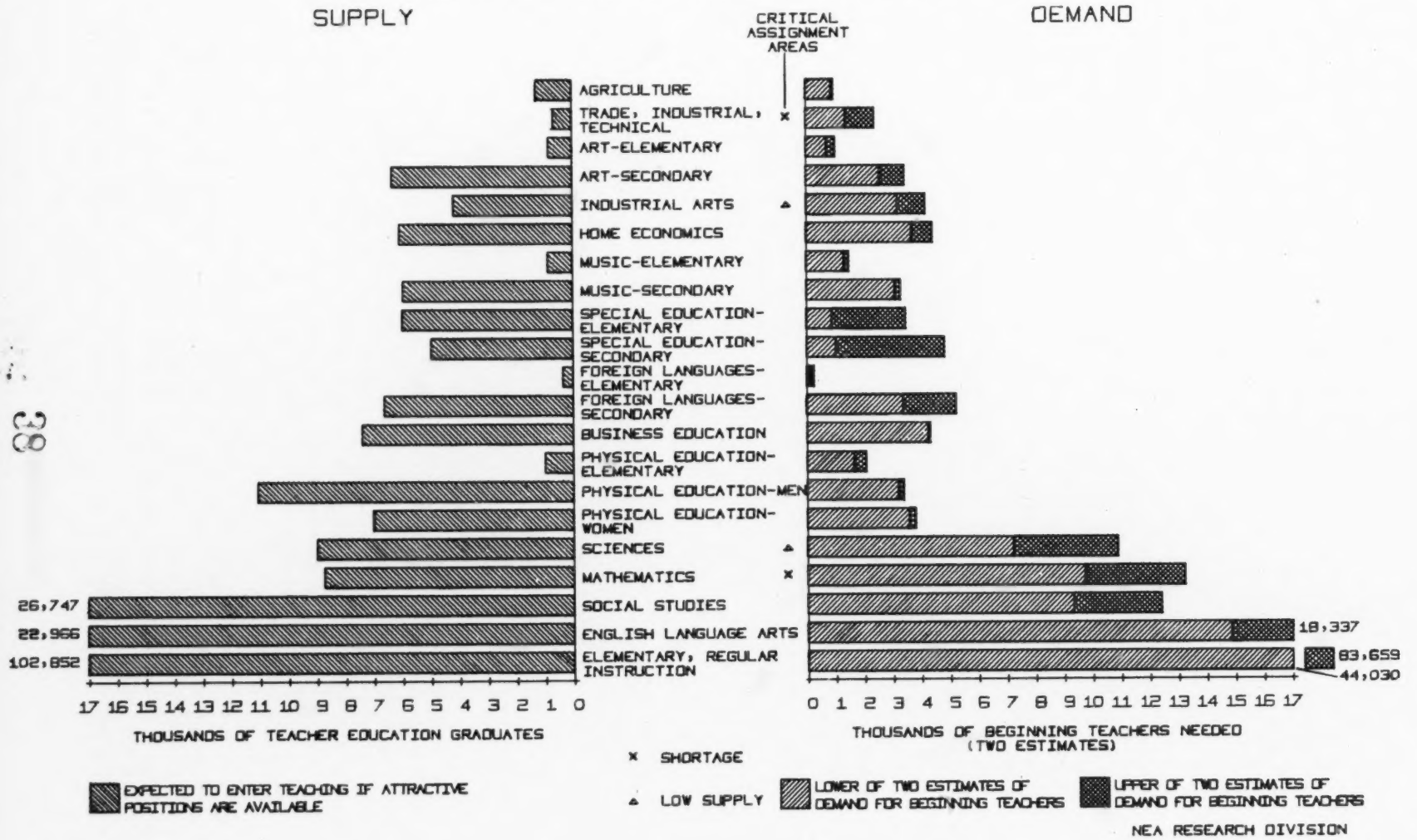

TABLE 16.—COMPARISON OF THE ESTIMATED SUPPLY OF BEGINNING TEACHERS WITH THE ADJUSTED TREND CRITERION ESTIMATE OF DEMAND FOR BEGINNING TEACHERS AND FOR NEW TEACHERS IN 1972, BY ASSIGNMENT

Assignment	Estimated supply of beginning teachers	Estimated demand for beginning teachers		Difference between supply and demand for beginning teachers		Number of former teachers expected to re-enter classrooms	
		Distribution last year	Based upon percent of staff last year who were new teachers	Distribution last year	Based upon percent of staff last year who were new teachers	Distribution last year	Based upon percent of staff last year who were new teachers
1	2	3	4	5	6	7	8
ELEMENTARY (total)	(111,817)	(51,800)	(88,924)	(60,017)	(22,893)	(36,400)	(26,699)
Regular instruction	102,852	44,030	83,659	58,822	19,193	30,940	25,130
Selected subjects:							
Art	835	1,036	713	−201	122	728	155
Foreign language	343	104	250	239	93	72	63
Music	862	1,502	1,330	−640	−468	1,056	528
Physical and health education	971	1,658	2,071	−687	−1,100	1,164	601
Special education	5,954	3,470	901	2,484	5,053	2,440	222
SECONDARY (total)	(131,384)	(80,300)	(90,900)	(51,084)	(40,484)	(28,500)	(27,300)
Agriculture	1,260	964	894	296	366	342	224
Art	6,294	2,570	3,441	3,724	2,853	912	765
Business education	7,370	4,336	4,245	3,034	3,125	1,539	1,618
Distributive education	658	482	760	176	−102	171	253
English language arts	22,966	14,856	18,337	8,110	4,629	5,272	5,293
Foreign language	6,612	3,373	5,237	3,239	1,375	1,197	1,708
Home economics	6,040	3,694	4,436	2,346	1,604	1,311	1,193
Industrial arts	4,142	3,212	4,175	930	−33	1,140	1,178
Mathematics	8,734	9,716	13,224	−982	−4,490	3,449	3,347
Music	5,926	3,292	3,100	2,634	2,826	1,169	1,211
Physical and health education—men	11,062	3,212	3,367	7,850	7,695	1,140	1,141
Physical and health education—women	7,002	3,533	3,799	3,469	3,203	1,254	1,448
Natural and physical sciences	8,963	7,227	10,873	1,736	−1,910	2,565	3,548
Social studies	26,747	9,315	12,392	17,432	14,355	3,306	3,786
Trade, industrial, vocational, technical	639	2,409	1,394	−1,770	−755	855	280
Special education	4,946	4,818	1,035	128	3,911	1,710	209
Other subjects	2,023	3,291	191	−1,268	1,832	1,168	98

TABLE 17.–SUMMARY OF ESTIMATED SUPPLY COMPARED WITH THE ADJUSTED TREND CRITERION ESTIMATE OF DEMAND FOR BEGINNING TEACHERS IN 1972, ELEMENTARY-SCHOOL AND SECONDARY-SCHOOL SUBJECT AREAS, BY GENERAL CONDITION

Assignment	Numerical difference in the estimated supply of beginning teachers and estimated demand based on: Distribution last year	Numerical difference in the estimated supply of beginning teachers and estimated demand based on: Percent of staff last year who were new	Percent of 1971 teacher education graduates entering the profession	Estimated additional supply if 80.0 percent of graduates entered	Additional demand if estimated re-entry rate is reduced by 25%	General Condition
1	2	3	4	5	6	7
Mathematics	−982	−4,490	61.1	1,363	862	Shortage
Trade, industrial, vocational, technical	−1,770	−755	30.8	100	214	Shortage
Natural and physical sciences	1,736	−1,910	51.9	1,399	641	Low supply
Industrial arts	930	−33	62.6	646	285	Low supply
Special education						
Elementary	2,484	5,053	64.8	...	610	Near balance
Secondary	128	3,911	64.8	772	428	Near balance
Distributive education	176	−102	54.0	103	43	Near balance
Agriculture	296	366	46.7	197	86	
Art						
Elementary	−201	122	61.1	...	182	
Secondary	3,724	2,853	46.6	982	228	
Business education	3,034	3,125	35.0	1,150	385	
Elementary, regular instruction	58,822	19,193	50.1	...	7,735	
English language arts	8,110	4,629	46.3	3,585	1,318	
Foreign languages						
Elementary	239	93	60.9	...	18	Adequate supply
Secondary	3,239	1,375	45.5	1,032	299	
Home economics	2,346	1,604	48.6	943	328	
Music						
Elementary	−640	−468	66.0	...	264	
Secondary	2,634	2,826	56.2	925	292	
Physical and health education						
Elementary	−687	−1,100	56.1	...	291	
Secondary–Men	7,850	7,695	45.8	1,726	285	
Women	3,469	3,203	54.6	1,093	314	
Social studies	17,432	14,355	34.4	4,174	827	

FIGURE V

ESTIMATES OF SUPPLY OF TEACHER EDUCATION GRADUATES AND DEMAND FOR BEGINNING TEACHERS, 1972-73

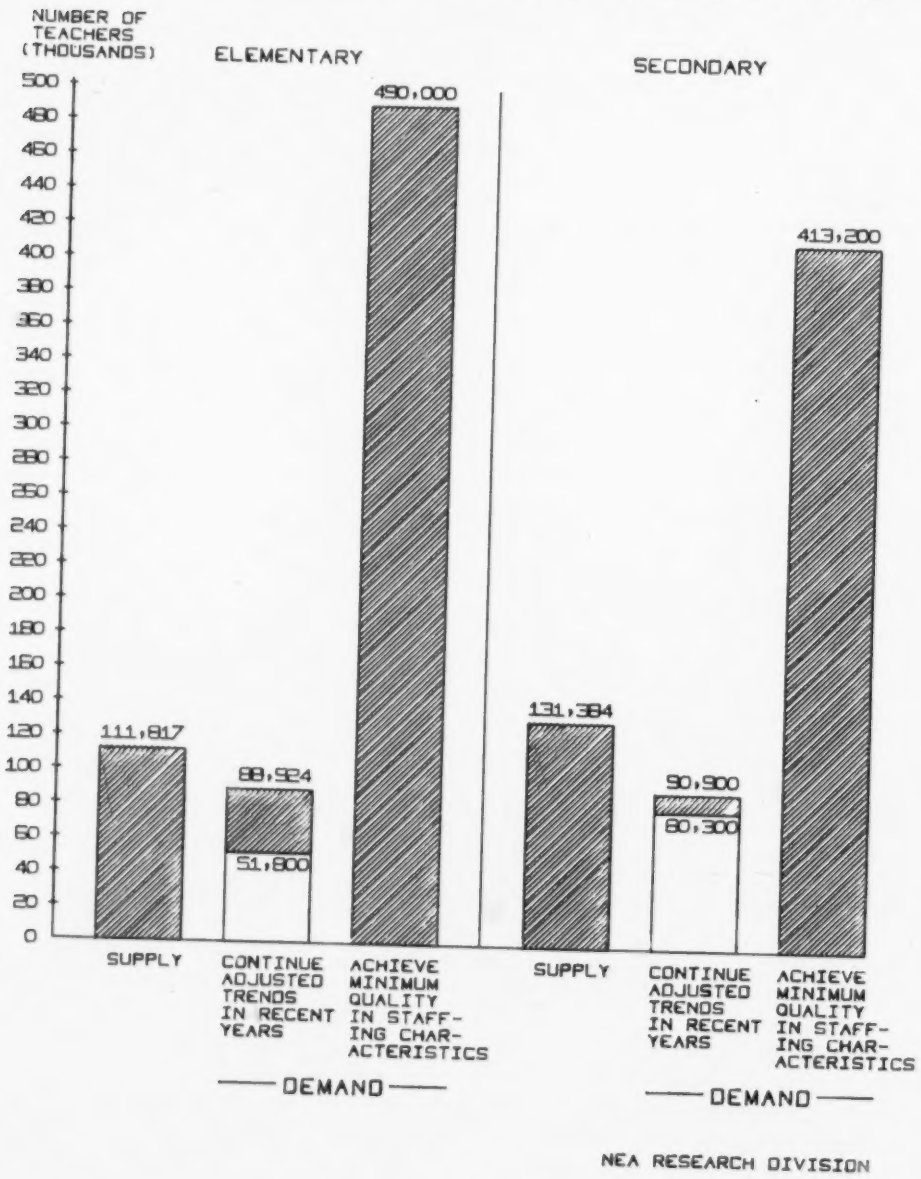

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TABLE 18.–SUMMARY OF THE COMPARISONS OF ESTIMATED SUPPLY WITH THE ESTIMATES OF DEMAND FOR BEGINNING TEACHERS, 1972-73

Level and criterion for estimate	Supply of beginning teachers	Demand for beginning teachers	Difference	Supply as percent of demand
1	2	3	4	5
ELEMENTARY SCHOOL				
Adjusted Trend Criterion				
Demand based on distribution of new teachers last year	111,817	51,880	60,017	215.9
Demand based on percent of staff who were new teachers last year	111,817	83,659	28,158	133.7
Quality criterion	111,817	490,000	−378,183	22.8
SECONDARY SCHOOL				
Adjusted Trend Criterion				
Demand based on distribution of new teachers last year	131,384	80,300	51,084	163.6
Demand based on percent of staff who were new teachers last year	131,384	90,900	40,484	144.5
Quality criterion	131,384	413,200	−281,816	31.8
TOTAL				
Adjusted Trend Criterion				
Demand based on distribution of new teachers last year	243,201	132,100	111,101	184.1
Demand based on percent of staff who were new teachers last year	243,201	174,559	68,642	139.3
Quality criterion	243,201	903,200	−659,999	26.9

The estimates of conditions shown in Table 17 are based on a continuation of gradual movement in the improvement in educational staffing toward the standards described in the *Quality Criterion Estimate.* Acceleration of movement toward improved quality will increase the demand for beginning teachers.

Summary of Comparisons Between Estimates of Teacher Supply and Demand

Beginning Teachers: Table 18 summarizes the comparisons between the estimated supply of beginning teachers and the three estimates of demand for beginning teachers. The estimated total supply of beginning teachers is greater than the two estimates of the demand projected by the *Adjusted Trend Criterion Estimate* but is inadequate to meet the requirements of the *Quality Criterion Estimate.*

Re-entering Teachers: In fall 1972 it is estimated that 83,400 qualified teachers who have interrupted their active employment for at least one year are interested in re-entering teaching positions. This may be a minimum estimate in view of the limited evidence that many normally mobile

teachers are being forced to enter the unemployment pool because the number of positions open to them has been reduced in 1972.

The number of positions expected to be filled in 1972 by qualified re-entering teachers is estimated to be between 54,000 and 64,900. The lower estimate reflects the possible effect of decisions by some local school systems to select larger than usual proportions of beginning teachers to fill their position vacancies.

Comparison of these estimates shows that the supply of potentially re-entering teachers exceeds the estimated demand for them by between 18,500 and 29,400 persons in Fall 1972.

EDUCATION COMPLETED BY PUBLIC-SCHOOL TEACHERS

THE COMPLETION OF a bachelor's degree with an emphasis on preparation for teaching has been widely accepted as a minimum educational requirement for becoming an effective teacher. The completion of a master's degree is increasingly being used as the minimum level of educational preparation to be expected of persons considered to be fully qualified teachers. This section reviews the status and trends in the accomplishment of these two levels of academic preparation among public-school teachers. Also given is information from the states that reported on the highest level of education completed by their new teachers and by the entire teaching staffs of their public elementary and secondary schools.

Trends in Academic Preparation Completed

Estimated distributions of public-school teachers by their highest earned degrees as established in 13 national sampling surveys are given in Table 19. The 1955-56 survey contained a slightly higher

TABLE 19.—PERCENTAGE DISTRIBUTION OF PUBLIC ELEMENTARY AND SECONDARY-SCHOOL TEACHERS BY HIGHEST DEGREE EARNED, SELECTED YEARS

School year	All teachers			Elementary-school teachers			Secondary-school teachers		
	No degree or 2-year degree	Bachelor's degree	Master's or higher degree	No degree or 2-year degree	Bachelor's degree	Master's or higher degree	No degree or 2-year degree	Bachelor's degree	Master's or higher degree
1	2	3	4	5	6	7	8	9	10
1930-31	70.0	(— 30.1—)		...	...	...	...	...	...
1947-48	40.6	43.3	15.1	...	...	...	...	...	...
1955-56	22.2	53.2	24.6	34.1	53.1	12.8	3.0	53.3	43.7
1960-61	14.6	61.9	23.5	23.8	62.2	14.0	2.3	61.6	36.1
1962-63	10.9	64.5	24.6	17.6	65.0	17.4	1.9	63.9	34.2
1964-65	8.6	67.3	24.1	15.1	70.8	14.1	1.7	63.5	34.8
1965-66	6.6	67.2	26.2	10.9	70.9	18.2	2.1	63.2	34.7
1966-67	6.1	68.2	25.7	10.3	72.9	16.8	1.5	63.0	35.5
1967-68	4.7	67.4	27.9	8.0	73.2	18.9	1.4	61.4	37.2
1968-69	4.5	65.2	30.3	7.8	71.1	21.1	1.1	59.1	39.8
1969-70	3.6	65.8	30.6	5.9	72.0	22.1	1.2	59.2	39.6
1970-71	2.9	69.6	27.5	4.6	74.5	20.9	1.1	64.2	34.7
1971-72	2.0	68.3	29.7	3.2	75.9	20.9	0.8	59.9	39.3

SOURCES:

1930-31: Evenden, E.S. *National Survey of the Education of Teachers: Summary and Interpretation.* U.S. Department of the Interior, Office of Education, Bulletin 1933, No. 10, Vol. VI. Washington, D.C.: Government Printing Office, 1935.

1947-48: National Education Association, Research Division. "Teachers in the Public Schools." *Research Bulletin* 27: 133; December 1949.

1955-56: National Education Association, Research Division. "The Status of the American Public-School Teacher." *Research Bulletin* 35: 15; February 1957.

1960-61: National Education Association, Research Division. *The American Public-School Teacher, 1960-61.* Research Monograph 1963-M2. Washington, D.C.: the Association, April 1963. p. 91.

1962-63 through 1969-70: National Education Association, Research Division, unpublished status information obtained from periodic sampling surveys.

1970-71: National Education Association, Research Division. *Status of the American Public-School Teacher, 1970-71.* Research Report 1972-R3. Washington, D.C.: the Association, 1972. p. 102.

1971-72: National Education Association, Research Division, unpublished status information obtained from an annual sampling survey.

TABLE 20.—PERCENT OF ALL ELEMENTARY- AND ALL SECONDARY-SCHOOL TEACHERS IN 29 STATES HAVING MASTER'S DEGREE, BACHELOR'S OR HIGHER DEGREE, AND LESS THAN TWO YEARS' COLLEGE, 1971-72

State	All elementary-school teachers					All secondary-school teachers				
	Master's or higher degree		Bachelor's or higher degree		Less than 2 years of college	Master's or higher degree		Bachelor's or higher degree		Less than 2 years of college
	Percent	Rank	Percent	Rank		Percent	Rank	Percent	Rank	
1	2	3	4	5	6	7	8	9	10	11
Alabama	16.5	14	94.4	16.5	0.8	32.5	11	98.4	20	0.3
Arkansas	16.4	15	98.5	6	...	28.7	17	99.6	6.5	0.1
Colorado	22.8	5	99.5	4	0.1	40.6	4	99.2	12	0.4
Connecticut	32.3	3	98.4	7.5	0.3	49.2	2	99.6	6.5	0.2
Delaware	17.8	9	90.9	22	...	30.6	13	94.4	28	...
Georgia	11.9	19	98.1	10	...	37.2	6.5	98.7	17.5	...
Hawaii	9.4	26.5	99.4	5	...	16.2	29	99.6	6.5	...
Idaho	16.7	12.5	92.8	19	...	34.7	9	99.0	14.5	0.1
Kansas	49.9	1	97.5	12	0.8	65.7	1	98.8	16	0.8
Louisiana	22.1	6	96.0	15	0.4	35.3	8	98.7	17.5	0.3
Maine	11.8	20	87.9	26	4.3	26.2	23	95.9	26	2.4
Missouri[a]	24.0	4	98.2	9	0.1	42.6	3	97.4	22	2.2
Nebraska	9.4	26.5	85.1	27	*	25.5	24	99.6	6.5	0.2
Nevada	14.8	16	100.0	1.5	...	28.2	19	100.0	1.5	...
New Hampshire[b]	10.8	24	89.1	25	1.4	23.9	26	95.8	27	1.6
North Carolina	11.1	22	97.3	13	...	17.2	27.5	96.5	24	...
North Dakota	8.0	29	73.4	29	...	17.2	27.5	99.7	4	...
Ohio	12.7	18	92.0	21	0.1	27.3	22	98.5	19	0.6
Oregon	16.9	10.5	96.2	14	0.2	37.2	6.5	99.0	14.5	0.6
Pennsylvania	18.2	7	89.7	23	2.2	30.3	14	96.1	25	2.8
Rhode Island	18.0	8	98.4	7.5	...	33.9	10	99.5	10	...
South Carolina	16.7	12.5	97.8	11	0.1	29.0	15.5	99.5	10	0.1
Tennessee	16.9	10.5	89.5	24	0.2	32.3	12	99.1	13	0.1
Vermont	9.4	26.5	83.5	28	2.7	28.0	20	93.7	29	4.7
Virginia	11.2	21	94.4	16.5	1.3	24.2	25	97.9	21	2.1
Washington[b]	33.8	2	100.0	1.5	...	40.0	5	100.0	1.5	...
West Virginia	13.8	17	92.2	20	0.1	27.9	21	97.2	23	1.0
Wisconsin	10.9	23	93.1	18	0.1	29.0	15.5	99.5	10	*
Wyoming	9.4	26.5	99.7	3	0.3	28.6	18	99.8	3	0.2

*Less than 1/10 of 1 percent.

[a]Data are for 1970-71.

[b]Teachers whose preparation level is not known are not included.

than representative percent of NEA members which may have introduced a slight bias toward higher preparation. Between 1955 and 1965 marked improvement was noted in the proportions of elementary-school teachers having completed at least the bachelor's degree. However, the pace of this trend was reduced between 1965-66 and 1966-67; possibly this was an outcome of the unusual shortages reported in fall 1966. Continued improvement has been observed during the past eight years in the proportion of elementary-school teachers who have completed at least the bachelor's degree.

At the secondary school level little change was estimated during the past 10 years in the proportion of teachers having completed at least the bachelor's degree. With the exception of the estimate for 1970-71 the sampling studies show a re-

TABLE 21.–PERCENT OF NEW ELEMENTARY- AND NEW SECONDARY-SCHOOL TEACHERS HAVING MASTER'S DEGREE, BACHELOR'S OR HIGHER DEGREE, AND LESS THAN TWO YEARS' COLLEGE, 1971-72, IN 25 STATES

State	New elementary-school teachers					New secondary-school teachers				
	Master's or higher degree		Bachelor's or higher degree		Less than 2 years of college	Master's or higher degree		Bachelor's or higher degree		Less than 2 years of college
	Percent	Rank	Percent	Rank		Percent	Rank	Percent	Rank	
1	2	3	4	5	6	7	8	9	10	11
Alabama	14.7	7	97.3	16.5	0.4	54.1	2	95.9	22	0.4
Arkansas	6.6	14	100.0	2	...	8.6	19	100.0	3	...
Colorado	7.2	12	99.7	6	0.1	9.9	16	98.1	15	0.6
Connecticut	18.7	3	99.8	4	0.1	24.5	4	99.7	6.5	0.1
Delaware	15.0	5	89.3	25	...	24.3	5	94.8	23	...
Hawaii	21.0	2	99.7	6	...	21.0	7	100.0	3	...
Idaho	14.9	6	98.6	10	...	25.7	3	99.3	10	0.3
Kansas	45.7	1	97.3	16.5	0.9	61.7	1	98.4	12.5	0.9
Louisiana	6.8	13	96.7	18	0.8	11.0	13.5	98.0	16	0.9
Maine	4.9	17	98.4	11	0.8	11.0	13.5	98.4	12.5	1.3
Missouri[a]	11.8	9	97.6	15	0.4	23.3	6	97.9	17	1.7
Nevada	12.0	8	100.0	2	...	10.3	15	100.0	3	...
North Carolina	1.8	25	95.6	20.5	...	3.4	25	91.1	25	...
North Dakota	4.6	18	95.4	22	...	6.1	21	100.0	3	...
Ohio	7.5	11	96.4	19	*	11.8	12	96.7	21	2.1
Oregon	5.1	15	97.8	14	0.8	14.7	11	97.2	20	2.2
Pennsylvania	2.4	24	95.6	20.5	4.3	4.8	24	94.2	24	5.0
Rhode Island	4.2	19	99.1	8	...	16.0	9	99.4	9	...
South Carolina	7.8	10	98.3	12	0.1	15.6	10	99.7	6.5	0.1
Tennessee	3.0	22	91.2	24	1.0	8.2	20	97.7	18	0.3
Virginia	3.6	20	99.7	6	0.3	5.6	23	97.4	19	2.6
Washington[b]	15.4	4	100.0	2	...	16.7	8	100.0	3	...
West Virginia	3.0	22	94.3	23	0.1	9.6	17	98.2	14	1.1
Wisconsin	3.0	22	97.9	13	...	6.0	22	99.2	11	...
Wyoming	5.0	16	99.0	9	1.0	9.2	18	99.5	8	0.5

*Less than 1/10 of 1 percent.

[a]Data are for 1970-71.

[b]Teachers whose preparation level is not known are not included.

cent trend toward a higher proportion of secondary-school teachers having the master's or higher degree.

Differences Among the States

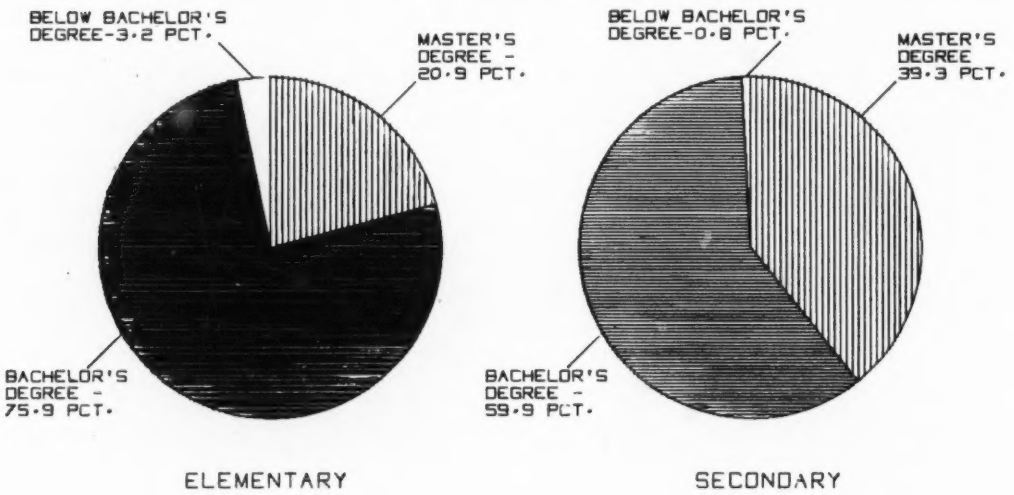
Among the 29 states reporting information for 1971-72, marked differences are observed in the proportion of elementary-school teachers who have completed the bachelor's degree, shown in Table 20. Seven states report that more than 10 percent do not have the bachelor's degree.

Wide differences are noted among the 29 reporting states in the proportion of elementary-school teachers who have completed the master's degree, also shown in Table 20. Three of these states report that more than one-fourth have the master's degree. On the other hand, in five states less than 10 percent have completed the master's degree. Five states report more than 1 percent having completed less than two years of college preparation.

Information about the preparation level of secondary-school teachers by state is shown also in Table 20. In two of the 29 reporting states all have the bachelor's or higher degree, and in 11 additional states the small numbers lacking this level of preparation represent less than 1 percent of the number of secondary-school teachers. At the other

FIGURE VI

ESTIMATED NATIONAL DISTRIBUTION OF PUBLIC-SCHOOL TEACHERS BY THEIR HIGHEST LEVEL OF ACADEMIC PREPARATION, 1971-72



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extreme, in five states more than 1 percent have not completed two years of college preparation.

The percents of secondary-school teachers having at least the master's degree range from 16.2 to 65.7. In one of the 29 reporting states, more than half have completed at least the master's degree. On the other hand, in five less than one-fourth have completed this level of preparation.

Preparation of New Teachers

The level of preparation completed by teachers entering or re-entering full-time employment provides an indication of the extent school systems are able to find fully qualified persons to fill vacated or new positions. An inadequate supply of qualified teachers or limited attraction of employment in education for qualified personnel may be reflected in the employment of persons having below-average or substandard qualifications. The comparison of the educational qualifications of new teachers with those of the total number of teachers in service provides an indication of whether the persons being employed are raising or lowering the quality of the total staff.

Table 21 shows the percents of new teachers in elementary and secondary schools who have completed selected levels of preparation in each of the 25 states reporting. In only nine states does the percent of new elementary-school teachers having the master's degree exceed 10 percent of all new elementary-school teachers. At the secondary-school level, possession of the master's degree by more than 10 percent of the new teachers is reported by 15 of the 25 states.

At the other extreme in adequacy of preparation, the percent of new elementary-school teachers having less than two years of college preparation exceeded 1 percent in one of the 25 states reporting this information. The percent of new secondary-school teachers having less than two years of college preparation exceeded 1 percent in seven of the 25 states reporting this information.

Comparison of information in Tables 20 and 21 for individual states reporting the educational qualifications of new teachers and all teachers provides an indication of the influence of the educational qualifications of new teachers upon the qualifications of the total staff in these states.

The quality of the total staff is likely to have been improved where the percent of new teachers having the bachelor's or higher degree is at least 3.0 percentage points more than the percent of all teachers having this level of preparation. This improvement at the elementary-school level is observed in seven of the 25 states providing information about new and all elementary-school teachers: Ida-

ho, Maine, North Dakota, Ohio, Pennsylvania, Virginia, and Wisconsin.

The percent of new elementary-school teachers having the bachelor's or higher degree is within one percentage point of the percent of all elementary-school teachers having this level of preparation in 10 of the 13 states reporting that 97 percent or more of all elementary-school teachers have the bachelor's or higher degree. In the remaining states the proportion of new teachers having at least the bachelor's degree is not more than three percentage points lower than the proportion of all teachers having at least the bachelor's degree.

In none of the states reporting the preparation of new and all secondary-school teachers is the proportion of new teachers having the bachelor's or higher degree more than three percentage points higher than the proportion of all teachers having this level of preparation. The percent of secondary-school teachers having the bachelor's or higher degree is within one percentage point of the percent of all secondary-school teachers having this level of preparation in 16 of the 23 states reporting that 97 percent or more of all secondary-school teachers have at least the bachelor's degree. In only one state, North Carolina, is the percent of new secondary-school teachers having at least the bachelor's degree more than three percentage points lower than the percent of all secondary-school teachers having this level of preparation.

APPENDIX

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE

TYPE OF PREPARATION COMPLETED BY STUDENT	ALABAMA		ALASKA		ARIZONA	
	1972	1971	1972	1971	1972	1971
ELEMENTARY-SCHOOL TOTAL	1,551	1,616	164	159	1,792	1,634
REGULAR INSTRUCTION	1,548	1,615	164	159	1,786	1,622
SELECTED SUBJECTS(TOTAL)	3	1	...	...	6	12
ART	...	...	...	...	...	4
FOREIGN LANGUAGES	...	...	...	...	1	...
MUSIC	1	1	...	...	...	5
PHYSICAL & HEALTH EDUCATION	2	...	...	...	5	3
SECONDARY SCHOOL						
AGRICULTURE	73	122	...	...	40	43
ART	96	95	3	2	111	86
BUSINESS EDUCATION	288	246	3	7	95	123
DISTRIBUTIVE EDUCATION	7	3	...	...	15	10
ENGLISH LANGUAGE ARTS(TOTAL)	515	504	16	11	322	327
ENGLISH	477	466	16	10	263	266
JOURNALISM	...	...	...	...	13	13
SPEECH AND DRAMATIC ARTS	38	38	...	1	46	48
FOREIGN LANGUAGES(TOTAL)	49	37	4	2	123	114
FRENCH	21	18	1	1	17	12
GERMAN	12	3	3	1	7	11
LATIN	...	...	...	...	...	1
RUSSIAN	...	...	...	...	2	5
SPANISH	15	15	...	...	88	78
OTHER	1	1	...	...	9	7
HOME ECONOMICS	195	163	3	2	93	66
INDUSTRIAL ARTS	35	30	...	...	98	82
JUNIOR HIGH SCHOOL(GENERAL)	...	...	...	...	...	...
MATHEMATICS	227	186	6	5	82	47
MUSIC	187	150	5	4	75	67
PHYSICAL & HEALTH EDUCATION	536	524	11	8	243	218
NATURAL & PHYSICAL SCIENCES (TOTAL)	228	201	5	5	97	86
SUBJECT NOT SPECIFIED	7	7	...	1	24	20
GENERAL SCIENCE	32	29	1	1	10	8
BIOLOGY	159	141	4	3	42	36
CHEMISTRY	30	23	...	...	17	18
PHYSICS	...	1	...	...	4	4
SOCIAL STUDIES(TOTAL)	768	847	22	17	328	318
SUBJECT NOT SPECIFIED	136	160	1	1	70	77
HISTORY, GEOGRAPHY	430	489	21	14	204	186
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	158	140	...	2	1	1
OTHER SOCIAL STUDIES	44	58	...	...	53	54
TRADE, INDUSTRY, TECHNOLOGY	12	7	...	...	4	3
OTHER SECONDARY SUBJECTS	193	145	19	15	4	8
SECONDARY-SCHOOL TOTAL	3,409	3,260	97	78	1,730	1,598
UNGRADED						
SPECIAL EDUCATION	67	47	...	1	224	111
LIBRARIAN	38	34	...	...	17	10
GUIDANCE COUNSELOR	215	203	6	3	57	67
SCHOOL PSYCHOLOGIST	8	3	...	...	15	13
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	...	...	...	...	...	...
OTHER UNGRADED	130	125	...	...	113	82

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	ARKANSAS		CALIFORNIA		COLORADO	
	1972	1971	1972	1971	1972	1971
ELEMENTARY-SCHOOL TOTAL	704	1,194	8,033	8,527	1,547	1,615
REGULAR INSTRUCTION	627	1,101	7,618	7,968	1,505	1,570
SELECTED SUBJECTS(TOTAL)	77	93	415	559	42	45
ART	20	42	166	202	3	4
FOREIGN LANGUAGES	52	50	124	170	3	7
MUSIC	5	1	81	138	21	20
PHYSICAL & HEALTH EDUCATION	...	...	44	49	15	14
SECONDARY SCHOOL						
AGRICULTURE	63	61	83	54	...	32
ART	97	85	346	399	177	214
BUSINESS EDUCATION	290	226	238	279	130	137
DISTRIBUTIVE EDUCATION	6	1	1	2	28	40
ENGLISH LANGUAGE ARTS(TOTAL)	329	354	1,397	1,580	487	584
ENGLISH	257	275	1,177	1,346	389	468
JOURNALISM	4	5	36	52	2	1
SPEECH AND DRAMATIC ARTS	68	74	184	182	96	115
FOREIGN LANGUAGES(TOTAL)	34	26	512	559	141	228
FRENCH	11	12	167	181	49	71
GERMAN	1	2	69	80	27	25
LATIN	...	...	9	1	...	1
RUSSIAN	...	...	9	8	6	1
SPANISH	22	12	231	265	59	76
OTHER	...	...	27	24	...	54
HOME ECONOMICS	143	144	293	318	51	106
INDUSTRIAL ARTS	37	29	346	397	119	137
JUNIOR HIGH SCHOOL(GENERAL)	...	...	1	...	...	...
MATHEMATICS	136	115	540	516	136	139
MUSIC	157	159	202	252	153	181
PHYSICAL & HEALTH EDUCATION	505	453	1,019	935	373	437
NATURAL & PHYSICAL SCIENCES (TOTAL)	139	169	532	536	197	240
SUBJECT NOT SPECIFIED	6	4	77	19	20	27
GENERAL SCIENCE	25	23	13	9	89	115
BIOLOGY	92	115	310	392	57	64
CHEMISTRY	13	24	85	63	19	21
PHYSICS	3	3	47	53	12	13
SOCIAL STUDIES(TOTAL)	411	380	1,853	2,003	471	548
SUBJECT NOT SPECIFIED	286	289	261	317	267	352
HISTORY, GEOGRAPHY	102	68	1,013	1,102	180	173
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	18	22	328	313	21	13
OTHER SOCIAL STUDIES	5	1	251	271	3	10
TRADE, INDUSTRY, TECHNOLOGY	...	...	3	6	6	18
OTHER SECONDARY SUBJECTS	...	...	481	521	19	72
SECONDARY-SCHOOL TOTAL	2,347	2,202	7,847	8,357	2,488	3,113
UNGRADED						
SPECIAL EDUCATION	248	208	614	624	394	392
LIBRARIAN	4	4	117	88	22	18
GUIDANCE COUNSELOR	36	34	546	465	126	131
SCHOOL PSYCHOLOGIST	...	...	151	171	7	3
SCHOOL SOCIAL WORKER	...	...	36	24	27	...
SCHOOL NURSE	...	4	29	36	...	26
OTHER UNGRADED	10	7	121	77	...	...

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	CONNECTICUT		DELAWARE		DISTRICT OF COLUMBIA	
	1972	1971	1972	1971	1972	1971
ELEMENTARY-SCHOOL TOTAL	2,254	2,082	305	228	545	536
REGULAR INSTRUCTION	2,254	2,082	305	228	528	530
SELECTED SUBJECTS(TOTAL)	...	...	...	...	17	6
ART	...	...	...	...	8	6
FOREIGN LANGUAGES	...	...	...	...	1	...
MUSIC	...	...	...	...	4	...
PHYSICAL & HEALTH EDUCATION	...	...	...	...	4	...
SECONDARY SCHOOL						
AGRICULTURE	3	3	10	5	...	...
ART	172	151	21	18	40	31
BUSINESS EDUCATION	43	42	18	20	39	21
DISTRIBUTIVE EDUCATION	24	23	15	5	1	...
ENGLISH LANGUAGE ARTS(TOTAL)	439	415	51	61	134	117
ENGLISH	437	412	50	59	96	96
JOURNALISM	...	...	...	...	1	...
SPEECH AND DRAMATIC ARTS	2	3	1	2	37	21
FOREIGN LANGUAGES(TOTAL)	196	160	29	19	41	54
FRENCH	64	64	11	11	22	36
GERMAN	8	12	4	2	2	2
LATIN	7	7	2	...	...	...
RUSSIAN	2	1	2	...	...	...
SPANISH	74	49	10	6	17	16
OTHER	41	27	...	...	...	...
HOME ECONOMICS	26	20	48	42	7	6
INDUSTRIAL ARTS	59	61	...	...	...	...
JUNIOR HIGH SCHOOL(GENERAL)	...	...	...	...	...	...
MATHEMATICS	152	155	35	21	29	34
MUSIC	99	91	13	13	46	56
PHYSICAL & HEALTH EDUCATION	444	302	71	57	56	35
NATURAL & PHYSICAL SCIENCES (TOTAL)	169	128	13	14	21	16
SUBJECT NOT SPECIFIED	25	24	...	...	...	...
GENERAL SCIENCE	27	14	2	2	7	5
BIOLOGY	77	64	7	8	7	8
CHEMISTRY	28	21	2	4	6	3
PHYSICS	12	5	2	...	1	...
SOCIAL STUDIES(TOTAL)	519	470	71	49	139	129
SUBJECT NOT SPECIFIED	187	195	21	4	49	52
HISTORY, GEOGRAPHY	286	245	30	32	68	65
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	...	6	6	7	11	8
OTHER SOCIAL STUDIES	46	24	14	6	11	4
TRADE, INDUSTRY, TECHNOLOGY	...	...	...	...	...	...
OTHER SECONDARY SUBJECTS	90	90	...	...	...	2
SECONDARY-SCHOOL TOTAL	2,435	2,111	395	324	553	501
UNGRADED						
SPECIAL EDUCATION	340	266	...	9	175	110
LIBRARIAN	84	81	...	...	...	...
GUIDANCE COUNSELOR	132	119	...	3	89	62
SCHOOL PSYCHOLOGIST	13	15	...	...	...	...
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	...	...	...	...	...	...
OTHER UNGRADED	89	21	...	5	...	...

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	FLORIDA		GEORGIA		HAWAII	
	1972	1971	1972	1971	1972	1971
ELEMENTARY-SCHOOL TOTAL	3,078	3,172	2,675	2,495	864	646
REGULAR INSTRUCTION	3,003	3,094	2,675	2,495	853	646
SELECTED SUBJECTS(TOTAL)	75	78	...	...	11	...
ART	19	24	...	...	1	...
FOREIGN LANGUAGES	...	...	...	...	...	...
MUSIC	14	22	...	...	...	...
PHYSICAL & HEALTH EDUCATION	42	32	...	...	10	...
SECONDARY SCHOOL						
AGRICULTURE	18	16	22	26	1	...
ART	201	194	125	108	36	15
BUSINESS EDUCATION	205	216	273	266	38	27
DISTRIBUTIVE EDUCATION	72	57	15	10	4	10
ENGLISH LANGUAGE ARTS(TOTAL)	730	756	533	461	121	77
ENGLISH	625	672	483	436	93	59
JOURNALISM	19	16	3	...	...	...
SPEECH AND DRAMATIC ARTS	86	68	47	25	28	18
FOREIGN LANGUAGES(TOTAL)	172	167	145	146	36	17
FRENCH	47	47	71	70	13	9
GERMAN	14	12	16	20	1	2
LATIN	2	4	6	2	...	...
RUSSIAN	3	2	...	...	1	...
SPANISH	106	101	51	53	7	1
OTHER	...	1	1	1	14	5
HOME ECONOMICS	96	78	168	164	21	11
INDUSTRIAL ARTS	80	77	62	50	26	17
JUNIOR HIGH SCHOOL(GENERAL)	5	7	39	65	...	...
MATHEMATICS	294	282	310	263	51	35
MUSIC	188	196	174	129	24	10
PHYSICAL & HEALTH EDUCATION	665	637	322	269	61	51
NATURAL & PHYSICAL SCIENCES (TOTAL)	313	290	198	197	38	35
SUBJECT NOT SPECIFIED	152	150	27	36	5	...
GENERAL SCIENCE	12	23	25	23	10	12
BIOLOGY	118	96	118	111	17	23
CHEMISTRY	27	19	23	20	...	...
PHYSICS	4	2	5	7	6	...
SOCIAL STUDIES(TOTAL)	789	836	886	738	133	130
SUBJECT NOT SPECIFIED	428	514	326	401	7	52
HISTORY, GEOGRAPHY	126	110	331	223	85	27
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	169	153	194	97	33	50
OTHER SOCIAL STUDIES	66	59	35	17	8	1
TRADE, INDUSTRY, TECHNOLOGY	31	21	28	32	10	6
OTHER SECONDARY SUBJECTS	64	105	...	...	...	...
SECONDARY-SCHOOL TOTAL	3,923	3,935	3,300	2,924	600	441
UNGRADED						
SPECIAL EDUCATION	452	402	340	254	66	19
LIBRARIAN	103	131	51	43	...	...
GUIDANCE COUNSELOR	244	265	287	274	...	...
SCHOOL PSYCHOLOGIST	...	...	...	1	...	...
SCHOOL SOCIAL WORKER	...	...	5	5	...	...
SCHOOL NURSE	...	...	...	...	...	...
OTHER UNGRADED	460	455	...	...	...	...

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	IDAHO		ILLINOIS		INDIANA	
	1972	1971	1972	1971	1972	1971
ELEMENTARY-SCHOOL TOTAL	536	525	6,910	6,751	4,483	4,343
REGULAR INSTRUCTION	536	525	6,641	6,506	4,470	4,329
SELECTED SUBJECTS(TOTAL)	...	...	269	245	13	14
ART	...	...	30	20	4	1
FOREIGN LANGUAGES	...	...	18	15	2	1
MUSIC	...	...	80	80	4	9
PHYSICAL & HEALTH EDUCATION	...	...	141	130	3	3
SECONDARY SCHOOL						
AGRICULTURE	16	14	128	123	50	50
ART	26	19	573	526	284	281
BUSINESS EDUCATION	60	49	735	628	308	291
DISTRIBUTIVE EDUCATION	2	1	...	1	32	12
ENGLISH LANGUAGE ARTS(TOTAL)	138	141	2,025	1,879	978	995
ENGLISH	111	120	1,626	1,544	776	779
JOURNALISM	2	1	9	9	34	35
SPEECH AND DRAMATIC ARTS	25	20	390	326	168	181
FOREIGN LANGUAGES(TOTAL)	15	10	645	596	267	282
FRENCH	7	4	221	207	100	106
GERMAN	3	2	87	85	34	40
LATIN	...	...	15	17	11	20
RUSSIAN	...	...	24	18	3	2
SPANISH	5	4	281	261	104	101
OTHER	...	...	17	8	15	13
HOME ECONOMICS	50	63	426	391	302	303
INDUSTRIAL ARTS	15	13	478	390	217	183
JUNIOR HIGH SCHOOL(GENERAL)	...	...	100	88	1	2
MATHEMATICS	57	33	727	653	370	342
MUSIC	37	30	534	428	266	245
PHYSICAL & HEALTH EDUCATION	166	156	1,416	1,249	775	665
NATURAL & PHYSICAL SCIENCES (TOTAL)	78	64	845	723	400	376
SUBJECT NOT SPECIFIED	3	2	215	172	7	5
GENERAL SCIENCE	20	18	100	88	35	24
BIOLOGY	46	39	389	321	256	249
CHEMISTRY	8	4	88	100	73	71
PHYSICS	1	1	53	42	29	27
SOCIAL STUDIES(TOTAL)	185	170	2,263	2,149	1,674	1,679
SUBJECT NOT SPECIFIED	72	70	341	367	721	715
HISTORY, GEOGRAPHY	80	70	1,237	1,200	499	508
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	15	12	429	360	288	287
OTHER SOCIAL STUDIES	18	18	256	222	166	169
TRADE, INDUSTRY, TECHNOLOGY	...	...	36	28	48	38
OTHER SECONDARY SUBJECTS	9	8	57	47	202	200
SECONDARY-SCHOOL TOTAL	854	771	10,988	9,899	6,174	5,944
UNGRADED						
SPECIAL EDUCATION	25	27	1,300	1,147	319	246
LIBRARIAN	...	...	81	56	83	87
GUIDANCE COUNSELOR	24	31	584	538	248	224
SCHOOL PSYCHOLOGIST	4	2	...	...	17	15
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	...	...	3	1	2	2
OTHER UNGRADED	9	12	232	229	323	271

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	IOWA		KANSAS		KENTUCKY	
	1972	1971	1972	1971	1972	1971
ELEMENTARY-SCHOOL TOTAL	2,098	1,985	1,829	1,888	2,231	2,264
REGULAR INSTRUCTION	2,073	1,943	1,776	1,813	2,227	2,229
SELECTED SUBJECTS(TOTAL)	25	42	53	75	4	35
ART	8	10	6	11	1	31
FOREIGN LANGUAGES	1	1	...	3	...	...
MUSIC	7	26	16	25	1	...
PHYSICAL & HEALTH EDUCATION	9	5	31	36	2	4
SECONDARY SCHOOL						
AGRICULTURE	90	74	36	35	70	55
ART	257	199	133	151	203	133
BUSINESS EDUCATION	151	141	152	160	284	274
DISTRIBUTIVE EDUCATION	...	15	4	8	4	6
ENGLISH LANGUAGE ARTS(TOTAL)	469	612	510	506	666	601
ENGLISH	380	490	404	420	589	540
JOURNALISM	14	15	2	1	7	5
SPEECH AND DRAMATIC ARTS	75	107	104	85	70	56
FOREIGN LANGUAGES(TOTAL)	204	225	130	127	97	74
FRENCH	108	70	35	70	43	35
GERMAN	26	50	40	17	14	10
LATIN	2	5	1	2	1	3
RUSSIAN	...	6	12	1	3	1
SPANISH	68	94	41	36	31	25
OTHER	...	...	1	1	5	...
HOME ECONOMICS	203	179	181	172	177	178
INDUSTRIAL ARTS	84	82	136	152	110	108
JUNIOR HIGH SCHOOL(GENERAL)	57	46	...	...	28	26
MATHEMATICS	230	213	156	163	216	252
MUSIC	249	203	297	268	189	191
PHYSICAL & HEALTH EDUCATION	696	483	508	511	676	693
NATURAL & PHYSICAL SCIENCES (TOTAL)	244	250	158	162	299	300
SUBJECT NOT SPECIFIED	37	54	41	34	137	136
GENERAL SCIENCE	28	40	40	12	1	1
BIOLOGY	140	126	61	94	123	124
CHEMISTRY	18	15	9	15	29	32
PHYSICS	21	15	7	7	9	7
SOCIAL STUDIES(TOTAL)	689	639	472	461	1,014	1,051
SUBJECT NOT SPECIFIED	274	214	160	169	359	385
HISTORY, GEOGRAPHY	243	291	231	218	370	385
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	136	80	55	45	223	219
OTHER SOCIAL STUDIES	36	54	26	29	62	62
TRADE, INDUSTRY, TECHNOLOGY	...	2	16	35	...	...
OTHER SECONDARY SUBJECTS	...	2	19	28	5	10
SECONDARY-SCHOOL TOTAL	3,623	3,365	2,908	2,939	4,038	3,952
UNGRADED						
SPECIAL EDUCATION	143	104	148	133	143	109
LIBRARIAN	51	76	10	14	40	43
GUIDANCE COUNSELOR	...	...	31	52	53	54
SCHOOL PSYCHOLOGIST	...	...	16	30	...	...
SCHOOL SOCIAL WORKER	...	...	...	...	31	31
SCHOOL NURSE	...	...	...	...	...	...
OTHER UNGRADED	...	...	55	95	6	6

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	LOUISIANA		MAINE		MARYLAND	
	1972	1971	1972	1971	1972	1971
ELEMENTARY-SCHOOL TOTAL	2,053	1,963	699	663	1,613	1,560
REGULAR INSTRUCTION	2,007	1,907	688	660	1,454	1,443
SELECTED SUBJECTS(TOTAL)	46	56	11	3	159	117
ART	3	7	...	...	69	54
FOREIGN LANGUAGES	...	...	...	...	4	2
MUSIC	12	9	...	...	39	31
PHYSICAL & HEALTH EDUCATION	31	40	11	3	47	30
SECONDARY SCHOOL						
AGRICULTURE	36	37	...	1	8	3
ART	90	86	47	62	91	126
BUSINESS EDUCATION	302	256	37	31	59	33
DISTRIBUTIVE EDUCATION	17	13	...	...	1	1
ENGLISH LANGUAGE ARTS(TOTAL)	600	539	116	107	316	272
ENGLISH	465	395	116	107	267	239
JOURNALISM	1	2	...	...	1	1
SPEECH AND DRAMATIC ARTS	134	142	...	...	48	32
FOREIGN LANGUAGES(TOTAL)	120	129	27	27	139	109
FRENCH	65	67	19	23	76	64
GERMAN	2	3	...	1	6	4
LATIN	2	1	2	1	1	...
RUSSIAN	1	...	...	1	1	1
SPANISH	50	58	5	1	55	40
OTHER	...	...	1	...	...	...
HOME ECONOMICS	202	196	58	52	71	79
INDUSTRIAL ARTS	54	45	37	42	42	27
JUNIOR HIGH SCHOOL(GENERAL)	...	...	36	96	...	...
MATHEMATICS	222	207	57	42	127	114
MUSIC	164	154	26	31	43	56
PHYSICAL & HEALTH EDUCATION	530	471	103	96	222	189
NATURAL & PHYSICAL SCIENCES (TOTAL)	190	194	38	18	131	144
SUBJECT NOT SPECIFIED	17	35	15	...	...	...
GENERAL SCIENCE	29	24	3	1	45	66
BIOLOGY	103	91	20	15	75	67
CHEMISTRY	31	41	...	1	7	7
PHYSICS	10	3	...	1	4	4
SOCIAL STUDIES(TOTAL)	627	581	152	138	332	386
SUBJECT NOT SPECIFIED	611	569	54	48	102	118
HISTORY, GEOGRAPHY	14	10	84	80	176	205
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	1	...	11	9	19	32
OTHER SOCIAL STUDIES	1	2	3	1	35	31
TRADE, INDUSTRY, TECHNOLOGY	24	25	20	17	...	...
OTHER SECONDARY SUBJECTS	...	...	181	241	...	...
SECONDARY-SCHOOL TOTAL	3,178	2,933	935	1,001	1,582	1,539
UNGRADED						
SPECIAL EDUCATION	191	145	61	58	203	198
LIBRARIAN	46	52	...	...	17	19
GUIDANCE COUNSELOR	129	146	...	...	4	4
SCHOOL PSYCHOLOGIST	...	...	...	...	...	...
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	...	...	...	...	...	...
OTHER UNGRADED	160	136	...	...	...	...

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	MASSACHUSETTS 1972	MASSACHUSETTS 1971	MICHIGAN 1972	MICHIGAN 1971	MINNESOTA 1972	MINNESOTA 1971
ELEMENTARY-SCHOOL TOTAL	5,272	4,923	5,994	6,057	2,287	3,256
REGULAR INSTRUCTION	5,079	4,793	5,753	5,836	2,267	3,220
SELECTED SUBJECTS(TOTAL)	193	130	241	221	20	36
ART	73	59	76	67	1	5
FOREIGN LANGUAGES	14	15	39	39	...	4
MUSIC	31	12	73	88	14	25
PHYSICAL & HEALTH EDUCATION	75	44	53	27	5	2
SECONDARY SCHOOL						
AGRICULTURE	26	30	56	68	29	30
ART	77	84	475	485	268	266
BUSINESS EDUCATION	206	219	495	455	176	207
DISTRIBUTIVE EDUCATION	51	15	42	41	34	33
ENGLISH LANGUAGE ARTS(TOTAL)	1,174	1,228	1,812	1,840	682	837
ENGLISH	1,118	1,166	1,382	1,450	540	679
JOURNALISM	...	1	28	23	1	3
SPEECH AND DRAMATIC ARTS	56	61	402	367	141	155
FOREIGN LANGUAGES(TOTAL)	340	353	431	386	216	243
FRENCH	184	228	173	156	67	86
GERMAN	11	31	78	54	68	70
LATIN	3	17	15	21	1	5
RUSSIAN	14	7	10	19	9	5
SPANISH	69	60	155	136	71	77
OTHER	59	10	...	...	...	...
HOME ECONOMICS	153	121	406	392	162	192
INDUSTRIAL ARTS	54	45	352	312	222	214
JUNIOR HIGH SCHOOL(GENERAL)	9	15	...	...	23	25
MATHEMATICS	451	413	611	682	305	311
MUSIC	112	145	278	308	276	272
PHYSICAL & HEALTH EDUCATION	551	515	981	973	561	633
NATURAL & PHYSICAL SCIENCES (TOTAL)	463	468	632	685	258	327
SUBJECT NOT SPECIFIED	77	64	25	24	10	20
GENERAL SCIENCE	77	108	66	66	28	28
BIOLOGY	213	196	414	377	157	206
CHEMISTRY	50	59	80	173	31	49
PHYSICS	46	41	47	45	32	24
SOCIAL STUDIES(TOTAL)	1,246	1,191	2,142	2,590	660	838
SUBJECT NOT SPECIFIED	417	400	622	630	300	372
HISTORY, GEOGRAPHY	635	626	762	1,189	235	360
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	175	129	497	487	44	50
OTHER SOCIAL STUDIES	19	36	261	284	81	56
TRADE, INDUSTRY, TECHNOLOGY	...	...	106	105	...	...
OTHER SECONDARY SUBJECTS	72	36	104	104	63	74
SECONDARY-SCHOOL TOTAL	4,985	4,878	8,923	9,426	3,935	4,502
UNGRADED						
SPECIAL EDUCATION	403	373	1,160	842	70	56
LIBRARIAN	20	17	58	46	41	53
GUIDANCE COUNSELOR	137	211	...	...	56	59
SCHOOL PSYCHOLOGIST	2	...	...	...	5	3
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	...	...	...	1	...	...
OTHER UNGRADED	106	203	5	5	...	...

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	MISSISSIPPI		MISSOURI		MONTANA	
	1972	1971	1972	1971	1972	1971
ELEMENTARY-SCHOOL TOTAL	1,433	1,449	3,068	3,087	776	674
REGULAR INSTRUCTION	1,409	1,323	2,847	2,899	771	670
SELECTED SUBJECTS(TOTAL)	24	126	221	188	5	4
ART	14	27	93	64	1	1
FOREIGN LANGUAGES	5	...	12	7	...	...
MUSIC	4	36	74	73	4	3
PHYSICAL & HEALTH EDUCATION	1	63	42	44	...	...
SECONDARY SCHOOL						
AGRICULTURE	71	55	46	44	17	13
ART	97	55	248	223	76	63
BUSINESS EDUCATION	442	322	254	266	115	110
DISTRIBUTIVE EDUCATION	13	3	12	9	6	19
ENGLISH LANGUAGE ARTS(TOTAL)	502	403	957	1,042	175	173
ENGLISH	380	321	752	858	160	165
JOURNALISM	3	7	14	13	3	3
SPEECH AND DRAMATIC ARTS	119	75	191	171	12	5
FOREIGN LANGUAGES(TOTAL)	49	46	207	210	45	43
FRENCH	15	20	72	81	18	17
GERMAN	3	2	25	22	10	8
LATIN	1	...	12	4	...	2
RUSSIAN	...	1	2	2	2	...
SPANISH	20	13	92	101	15	16
OTHER	10	10	4	...	...	...
HOME ECONOMICS	179	180	248	251	64	60
INDUSTRIAL ARTS	146	101	209	188	41	46
JUNIOR HIGH SCHOOL(GENERAL)	...	...	1	2	...	...
MATHEMATICS	214	194	296	318	61	68
MUSIC	167	155	255	238	50	43
PHYSICAL & HEALTH EDUCATION	639	436	1,680	709	198	185
NATURAL & PHYSICAL SCIENCES (TOTAL)	229	186	302	256	97	128
SUBJECT NOT SPECIFIED	36	2	27	31	16	15
GENERAL SCIENCE	34	81	20	23	24	33
BIOLOGY	112	76	200	161	46	65
CHEMISTRY	40	23	38	29	7	11
PHYSICS	7	4	17	12	4	4
SOCIAL STUDIES(TOTAL)	1,158	795	1,037	1,014	228	212
SUBJECT NOT SPECIFIED	507	422	686	722	45	46
HISTORY, GEOGRAPHY	225	210	211	186	146	130
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	162	41	93	60	30	33
OTHER SOCIAL STUDIES	264	122	47	46	7	3
TRADE, INDUSTRY, TECHNOLOGY	78	61	...	...	35	32
OTHER SECONDARY SUBJECTS	75	34	71	57	2	1
SECONDARY-SCHOOL TOTAL	4,059	3,026	5,823	4,827	1,210	1,196
UNGRADED						
SPECIAL EDUCATION	227	227	291	311	73	50
LIBRARIAN	73	61	28	20	14	11
GUIDANCE COUNSELOR	82	82	289	235	32	40
SCHOOL PSYCHOLOGIST	68	43	18	15	...	...
SCHOOL SOCIAL WORKER	37	...	2	1	...	...
SCHOOL NURSE	...	...	...	...	...	...
OTHER UNGRADED	...	62	67	60	...	4

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	NEBRASKA		NEVADA		NEW HAMPSHIRE	
	1972	1971	1972	1971	1972	1971
ELEMENTARY-SCHOOL TOTAL	1,651	1,720	241	206	483	421
REGULAR INSTRUCTION	1,620	1,692	241	206	477	418
SELECTED SUBJECTS(TOTAL)	31	28	...	...	6	3
ART	9	7	...	...	4	1
FOREIGN LANGUAGES	...	...	...	...	...	...
MUSIC	6	6	...	...	2	2
PHYSICAL & HEALTH EDUCATION	16	15	...	...	...	...
SECONDARY SCHOOL						
AGRICULTURE	36	42	...	5	...	...
ART	115	97	19	17	25	18
BUSINESS EDUCATION	202	176	26	19	22	23
DISTRIBUTIVE EDUCATION	...	10	...	...	16	25
ENGLISH LANGUAGE ARTS(TOTAL)	425	398	73	71	117	94
ENGLISH	319	322	67	55	117	94
JOURNALISM	18	12	1	4	...	...
SPEECH AND DRAMATIC ARTS	88	64	5	12	...	...
FOREIGN LANGUAGES(TOTAL)	83	80	25	15	44	37
FRENCH	31	30	8	2	40	29
GERMAN	14	19	9	6	1	...
LATIN	...	3	...	...	...	...
RUSSIAN	...	...	...	...	...	...
SPANISH	38	28	8	7	3	...
OTHER	...	...	...	...	...	8
HOME ECONOMICS	176	187	19	6	20	16
INDUSTRIAL ARTS	128	106	...	1	18	24
JUNIOR HIGH SCHOOL(GENERAL)	1	3	...	...	...	...
MATHEMATICS	186	193	13	13	38	37
MUSIC	151	121	30	9	13	13
PHYSICAL & HEALTH EDUCATION	425	374	77	48	105	97
NATURAL & PHYSICAL SCIENCES (TOTAL)	153	152	38	33	49	48
SUBJECT NOT SPECIFIED	17	12	10	6	6	1
GENERAL SCIENCE	1	3	...	...	16	10
BIOLOGY	108	112	19	19	24	31
CHEMISTRY	17	14	5	4	2	...
PHYSICS	10	11	4	4	1	6
SOCIAL STUDIES(TOTAL)	368	381	85	79	181	132
SUBJECT NOT SPECIFIED	148	165	35	29	123	104
HISTORY, GEOGRAPHY	197	186	21	22	41	26
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	17	21	22	19	9	1
OTHER SOCIAL STUDIES	6	9	7	9	8	1
TRADE, INDUSTRY, TECHNOLOGY	...	...	...	...	...	...
OTHER SECONDARY SUBJECTS	3	5	...	...	...	...
SECONDARY-SCHOOL TOTAL	2,452	2,325	405	316	648	564
UNGRADED						
SPECIAL EDUCATION	86	72	44	46	3	...
LIBRARIAN	10	10	...	3	1	8
GUIDANCE COUNSELOR	20	21	29	24	32	31
SCHOOL PSYCHOLOGIST	...	...	2	4	...	...
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	...	...	...	...	...	...
OTHER UNGRADED	47	32	...	...	59	44

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	NEW JERSEY		NEW MEXICO		NEW YORK	
	1972	1971	1972	1971	1972	1971
ELEMENTARY-SCHOOL TOTAL	3,880	3,645	757	596	12,273	11,687
REGULAR INSTRUCTION	3,848	3,612	712	569	11,918	11,307
SELECTED SUBJECTS(TOTAL)	32	33	45	27	355	380
ART	11	11	6	2	35	35
FOREIGN LANGUAGES	...	...	9	1	39	36
MUSIC	21	22	11	17	164	177
PHYSICAL & HEALTH EDUCATION	...	...	19	7	117	132
SECONDARY SCHOOL						
AGRICULTURE	...	...	...	...	42	42
ART	356	294	90	72	885	789
BUSINESS EDUCATION	233	235	71	78	367	381
DISTRIBUTIVE EDUCATION	59	48	19	13	148	126
ENGLISH LANGUAGE ARTS(TOTAL)	789	666	241	174	2,823	2,644
ENGLISH	715	595	148	133	2,339	2,242
JOURNALISM	...	...	37	24	187	161
SPEECH AND DRAMATIC ARTS	74	71	56	17	297	241
FOREIGN LANGUAGES(TOTAL)	284	296	82	53	958	986
FRENCH	113	130	3	8	413	442
GERMAN	17	12	2	2	36	55
LATIN	7	13	...	...	25	29
RUSSIAN	4	3	...	...	10	14
SPANISH	128	124	77	43	411	382
OTHER	15	14	...	...	63	64
HOME ECONOMICS	146	155	85	59	369	398
INDUSTRIAL ARTS	247	218	66	58	437	403
JUNIOR HIGH SCHOOL(GENERAL)	94	75	1	...	203	135
MATHEMATICS	339	289	69	54	1,005	1,047
MUSIC	255	200	41	26	445	429
PHYSICAL & HEALTH EDUCATION	596	500	232	213	1,238	1,098
NATURAL & PHYSICAL SCIENCES (TOTAL)	342	293	122	85	861	827
SUBJECT NOT SPECIFIED	92	169	...	10	137	106
GENERAL SCIENCE	48	20	31	30	113	63
BIOLOGY	140	77	56	36	436	477
CHEMISTRY	28	10	30	7	127	124
PHYSICS	34	17	5	2	48	57
SOCIAL STUDIES(TOTAL)	825	698	376	211	2,643	2,564
SUBJECT NOT SPECIFIED	574	594	55	43	2,454	2,415
HISTORY, GEOGRAPHY	236	96	177	144	156	121
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	2	1	85	10	4	2
OTHER SOCIAL STUDIES	13	7	59	14	29	26
TRADE, INDUSTRY, TECHNOLOGY	9	3	12	7	54	158
OTHER SECONDARY SUBJECTS	7	2	33	27	138	129
SECONDARY-SCHOOL TOTAL	4,581	3,972	1,540	1,130	12,616	12,156
UNGRADED						
SPECIAL EDUCATION	596	452	88	56	1,036	867
LIBRARIAN	59	52	4	2	155	162
GUIDANCE COUNSELOR	131	112	164	132	539	463
SCHOOL PSYCHOLOGIST	9	7	...	...	186	139
SCHOOL SOCIAL WORKER	...	...	5	...	145	7
SCHOOL NURSE	140	181	...	...	117	171
OTHER UNGRADED	163	148	126	125	535	440

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	NORTH CAROLINA		NORTH DAKOTA		OHIO	
	1972	1971	1972	1971	1972	1971
ELEMENTARY-SCHOOL TOTAL	2,823	2,649	544	590	6,595	6,566
REGULAR INSTRUCTION	2,823	2,649	538	584	6,433	6,413
SELECTED SUBJECTS(TOTAL)	...	...	6	6	162	153
ART	...	...	...	...	13	10
FOREIGN LANGUAGES	...	...	...	...	4	5
MUSIC	...	...	5	4	63	53
PHYSICAL & HEALTH EDUCATION	...	...	1	2	82	85
SECONDARY SCHOOL						
AGRICULTURE	29	37	36	26	...	...
ART	212	166	37	28	620	579
BUSINESS EDUCATION	437	433	205	170	496	538
DISTRIBUTIVE EDUCATION	4	2	9	7	12	18
ENGLISH LANGUAGE ARTS(TOTAL)	738	753	171	162	2,055	2,067
ENGLISH	698	708	154	146	1,619	1,704
JOURNALISM	...	...	...	...	6	4
SPEECH AND DRAMATIC ARTS	40	45	17	16	430	359
FOREIGN LANGUAGES(TOTAL)	193	194	22	28	542	590
FRENCH	133	133	8	8	208	204
GERMAN	4	6	10	12	48	69
LATIN	3	3	1	2	16	23
RUSSIAN	...	...	...	...	12	17
SPANISH	53	52	3	6	222	235
OTHER	...	...	...	...	36	42
HOME ECONOMICS	243	239	117	103	486	459
INDUSTRIAL ARTS	80	80	36	37	272	261
JUNIOR HIGH SCHOOL(GENERAL)	...	...	...	1	...	20
MATHEMATICS	344	324	102	91	609	627
MUSIC	236	205	99	93	449	459
PHYSICAL & HEALTH EDUCATION	792	821	260	284	1,255	1,111
NATURAL & PHYSICAL SCIENCES (TOTAL)	254	241	100	96	706	695
SUBJECT NOT SPECIFIED	120	47	...	...	201	237
GENERAL SCIENCE	...	9	17	8	81	80
BIOLOGY	122	164	65	72	319	292
CHEMISTRY	10	15	17	12	66	44
PHYSICS	2	6	1	4	39	42
SOCIAL STUDIES(TOTAL)	921	876	245	252	2,047	2,124
SUBJECT NOT SPECIFIED	574	563	120	136	999	1,147
HISTORY, GEOGRAPHY	330	298	95	89	535	473
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	17	15	30	27	84	99
OTHER SOCIAL STUDIES	...	...	...	...	429	405
TRADE, INDUSTRY, TECHNOLOGY	54	45	...	...	37	16
OTHER SECONDARY SUBJECTS	677	645	...	...	50	47
SECONDARY-SCHOOL TOTAL	5,214	5,061	1,439	1,378	9,636	9,611
UNGRADED						
SPECIAL EDUCATION	281	231	115	117	712	557
LIBRARIAN	98	85	10	1	16	25
GUIDANCE COUNSELOR	408	247	76	61	319	196
SCHOOL PSYCHOLOGIST	10	3	...	...	92	64
SCHOOL SOCIAL WORKER	...	...	...	...	89	64
SCHOOL NURSE	...	...	...	...	4	28
OTHER UNGRADED	275	259	...	...	5	6

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	OKLAHOMA		OREGON		PENNSYLVANIA	
	1972	1971	1972	1971	1972	1971
ELEMENTARY-SCHOOL TOTAL	2,023	2,026	1,481	1,642	7,495	7,462
REGULAR INSTRUCTION	1,980	1,957	1,481	1,642	7,385	7,254
SELECTED SUBJECTS(TOTAL)	43	69	...	...	110	208
ART	16	19	...	...	35	56
FOREIGN LANGUAGES	...	...	...	...	7	18
MUSIC	22	29	...	...	37	60
PHYSICAL & HEALTH EDUCATION	5	21	...	...	31	74
SECONDARY SCHOOL						
AGRICULTURE	86	78	16	19	25	24
ART	118	133	127	123	567	501
BUSINESS EDUCATION	353	351	101	86	409	431
DISTRIBUTIVE EDUCATION	19	16	...	...	43	37
ENGLISH LANGUAGE ARTS(TOTAL)	655	627	422	387	1,798	1,778
ENGLISH	488	470	336	319	1,686	1,684
JOURNALISM	27	20	10	14	...	...
SPEECH AND DRAMATIC ARTS	140	137	76	54	112	94
FOREIGN LANGUAGES(TOTAL)	116	116	128	120	824	822
FRENCH	50	52	41	38	297	308
GERMAN	4	5	27	24	131	136
LATIN	...	1	3	2	21	30
RUSSIAN	...	...	...	...	12	11
SPANISH	54	54	57	56	360	335
OTHER	8	4	...	...	3	2
HOME ECONOMICS	292	306	80	86	468	478
INDUSTRIAL ARTS	175	157	40	32	241	206
JUNIOR HIGH SCHOOL(GENERAL)	...	1	40	36	...	...
MATHEMATICS	297	272	109	118	991	1,021
MUSIC	214	191	105	137	525	494
PHYSICAL & HEALTH EDUCATION	593	575	388	358	1,083	991
NATURAL & PHYSICAL SCIENCES (TOTAL)	263	249	158	154	890	829
SUBJECT NOT SPECIFIED	190	194	22	17	148	122
GENERAL SCIENCE	19	13	42	36	80	75
BIOLOGY	36	30	67	72	448	435
CHEMISTRY	11	9	19	17	145	124
PHYSICS	7	3	8	12	69	73
SOCIAL STUDIES(TOTAL)	657	599	227	297	2,159	2,255
SUBJECT NOT SPECIFIED	593	541	214	287	1,266	1,328
HISTORY, GEOGRAPHY	44	37	13	10	654	643
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	3	5	...	...	46	39
OTHER SOCIAL STUDIES	17	16	...	...	193	245
TRADE, INDUSTRY, TECHNOLOGY	66	61	...	...	35	23
OTHER SECONDARY SUBJECTS	15	17	...	...	37	40
SECONDARY-SCHOOL TOTAL	3,919	3,749	1,941	1,953	10,095	9,930
UNGRADED						
SPECIAL EDUCATION	266	327	75	75	834	710
LIBRARIAN	69	66	...	...	229	320
GUIDANCE COUNSELOR	132	152	...	...	70	180
SCHOOL PSYCHOLOGIST	13	4	...	...	32	30
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	...	1	...	...	206	294
OTHER UNGRADED	222	290	...	...	189	246

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	RHODE ISLAND		SOUTH CAROLINA		SOUTH DAKOTA	
	1972	1971	1972	1971	1972	1971
ELEMENTARY-SCHOOL TOTAL	617	684	1,115	1,074	875	917
REGULAR INSTRUCTION	598	666	1,096	1,060	875	909
SELECTED SUBJECTS(TOTAL)	19	18	19	14	...	8
ART	...	...	2	...	...	3
FOREIGN LANGUAGES	8	9	...	...	...	4
MUSIC	3	...	11	11	...	1
PHYSICAL & HEALTH EDUCATION	8	9	6	3	...	...
SECONDARY SCHOOL						
AGRICULTURE	5	7	28	36	21	25
ART	4	1	63	34	56	48
BUSINESS EDUCATION	47	61	180	124	179	150
DISTRIBUTIVE EDUCATION	4	8	10	6	...	...
ENGLISH LANGUAGE ARTS(TOTAL)	158	182	296	330	252	249
ENGLISH	153	177	260	308	200	177
JOURNALISM	...	...	...	...	...	3
SPEECH AND DRAMATIC ARTS	5	5	36	22	52	69
FOREIGN LANGUAGES(TOTAL)	55	64	108	113	52	47
FRENCH	31	41	48	62	21	12
GERMAN	3	3	3	3	16	17
LATIN	...	1	3	1	...	...
RUSSIAN	...	...	...	...	...	...
SPANISH	16	14	20	19	15	18
OTHER	5	5	34	28	...	...
HOME ECONOMICS	40	37	55	69	68	71
INDUSTRIAL ARTS	11	45	23	20	94	73
JUNIOR HIGH SCHOOL(GENERAL)	...	...	...	...	...	1
MATHEMATICS	60	67	139	106	121	127
MUSIC	26	24	82	75	108	110
PHYSICAL & HEALTH EDUCATION	63	74	235	184	291	269
NATURAL & PHYSICAL SCIENCES (TOTAL)	50	53	149	139	100	93
SUBJECT NOT SPECIFIED	...	5	14	14	8	9
GENERAL SCIENCE	10	9	23	21	11	2
BIOLOGY	28	26	91	84	58	62
CHEMISTRY	3	4	15	17	16	18
PHYSICS	9	9	6	3	7	2
SOCIAL STUDIES(TOTAL)	180	192	422	367	305	274
SUBJECT NOT SPECIFIED	50	48	188	164	120	100
HISTORY, GEOGRAPHY	96	99	173	142	95	106
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	20	22	52	48	41	17
OTHER SOCIAL STUDIES	14	23	9	13	49	51
TRADE, INDUSTRY, TECHNOLOGY	21	24	22	13	27	22
OTHER SECONDARY SUBJECTS	...	23	6	3	1	...
SECONDARY-SCHOOL TOTAL	724	862	1,818	1,619	1,675	1,559
UNGRADED						
SPECIAL EDUCATION	134	124	81	64	62	49
LIBRARIAN	...	...	17	38	15	10
GUIDANCE COUNSELOR	83	80	65	75	41	46
SCHOOL PSYCHOLOGIST	10	5	...	1	3	4
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	10	13	...	...	...	...
OTHER UNGRADED	10	32	96	102	...	12

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	TENNESSEE		TEXAS		UTAH	
	1972	1971	1972	1971	1972	1971
ELEMENTARY-SCHOOL TOTAL	2,293	2,285	6,812	6,598	1,305	1,330
REGULAR INSTRUCTION	2,293	2,285	6,812	6,598	1,305	1,330
SELECTED SUBJECTS(TOTAL)	...	...	...	...	...	...
ART	...	...	...	...	...	...
FOREIGN LANGUAGES	...	...	...	...	...	...
MUSIC	...	...	...	...	...	...
PHYSICAL & HEALTH EDUCATION	...	...	...	...	...	...
SECONDARY SCHOOL						
AGRICULTURE	24	25	333	366	16	14
ART	93	90	470	396	67	60
BUSINESS EDUCATION	260	330	837	851	125	114
DISTRIBUTIVE EDUCATION	44	43	3	41	7	8
ENGLISH LANGUAGE ARTS(TOTAL)	647	596	2,138	1,971	344	345
ENGLISH	570	524	1,566	1,467	252	259
JOURNALISM	...	...	133	119	2	3
SPEECH AND DRAMATIC ARTS	77	72	439	385	90	83
FOREIGN LANGUAGES(TOTAL)	158	145	589	517	117	110
FRENCH	72	61	139	133	23	25
GERMAN	3	5	56	47	32	29
LATIN	12	12	14	12	1	1
RUSSIAN	...	2	...	...	1	2
SPANISH	70	64	377	317	58	51
OTHER	1	1	3	8	2	2
HOME ECONOMICS	265	282	761	706	175	171
INDUSTRIAL ARTS	65	71	328	390	96	84
JUNIOR HIGH SCHOOL(GENERAL)	...	...	...	...	...	...
MATHEMATICS	221	184	764	700	73	67
MUSIC	185	168	561	465	84	79
PHYSICAL & HEALTH EDUCATION	570	539	1,634	1,387	258	241
NATURAL & PHYSICAL SCIENCES (TOTAL)	367	360	724	635	79	70
SUBJECT NOT SPECIFIED	43	40	130	141	3	1
GENERAL SCIENCE	51	68	58	27	11	10
BIOLOGY	184	175	416	361	48	41
CHEMISTRY	60	49	73	71	8	8
PHYSICS	29	28	47	35	9	10
SOCIAL STUDIES(TOTAL)	1,298	1,295	1,978	1,825	322	324
SUBJECT NOT SPECIFIED	215	214	415	442	8	6
HISTORY, GEOGRAPHY	519	625	1,178	1,098	167	169
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	499	367	23	24	130	133
OTHER SOCIAL STUDIES	65	89	362	261	17	16
TRADE, INDUSTRY, TECHNOLOGY	5	5	...	...	2	3
OTHER SECONDARY SUBJECTS	39	30	...	...	32	26
SECONDARY-SCHOOL TOTAL	4,241	4,163	11,120	10,250	1,797	1,716
UNGRADED						
SPECIAL EDUCATION	137	125	810	555	152	143
LIBRARIAN	77	66	69	82	1	1
GUIDANCE COUNSELOR	9	8	...	46	28	24
SCHOOL PSYCHOLOGIST	...	...	...	...	10	8
SCHOOL SOCIAL WORKER	...	...	...	...	9	...
SCHOOL NURSE	...	...	...	...	...	...
OTHER UNGRADED	19	16	...	...	28	27

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	VERMONT		VIRGINIA		WASHINGTON	
	1972	1971	1972	1971	1972	1971
ELEMENTARY-SCHOOL TOTAL	240	247	2,077	1,804	1,932	2,523
REGULAR INSTRUCTION	194	230	2,054	1,786	1,417	2,084
SELECTED SUBJECTS(TOTAL)	46	17	23	18	515	439
ART	4	4	15	2	173	117
FOREIGN LANGUAGES	1	...	...	10	64	64
MUSIC	3	4	6	6	129	139
PHYSICAL & HEALTH EDUCATION	38	9	2	...	149	119
SECONDARY SCHOOL						
AGRICULTURE	...	...	33	34	7	16
ART	11	2	190	141	166	200
BUSINESS EDUCATION	38	38	225	214	98	144
DISTRIBUTIVE EDUCATION	...	...	92	75	...	...
ENGLISH LANGUAGE ARTS(TOTAL)	57	56	554	483	602	594
ENGLISH	57	56	520	464	536	506
JOURNALISM	...	...	1	1	13	20
SPEECH AND DRAMATIC ARTS	...	...	33	18	53	68
FOREIGN LANGUAGES(TOTAL)	14	21	207	175	132	178
FRENCH	11	13	88	78	41	63
GERMAN	...	...	13	12	38	46
LATIN	...	...	14	9	4	5
RUSSIAN	...	...	3	...	4	7
SPANISH	3	8	89	76	45	57
OTHER	...	...	...	...	...	...
HOME ECONOMICS	...	...	128	130	201	246
INDUSTRIAL ARTS	...	...	64	53	138	103
JUNIOR HIGH SCHOOL(GENERAL)	1	...	...	...	...	...
MATHEMATICS	23	26	224	211	157	155
MUSIC	3	1	183	131	99	88
PHYSICAL & HEALTH EDUCATION	33	33	427	368	350	326
NATURAL & PHYSICAL SCIENCES (TOTAL)	28	21	226	191	218	218
SUBJECT NOT SPECIFIED	5	2	6	9	76	26
GENERAL SCIENCE	8	4	32	23	10	18
BIOLOGY	6	12	135	120	99	123
CHEMISTRY	6	3	38	28	26	36
PHYSICS	3	...	15	11	7	15
SOCIAL STUDIES(TOTAL)	80	100	674	643	730	614
SUBJECT NOT SPECIFIED	6	40	94	66	359	149
HISTORY, GEOGRAPHY	45	38	341	433	239	328
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	3	1	145	90	78	79
OTHER SOCIAL STUDIES	26	21	94	54	54	58
TRADE, INDUSTRY, TECHNOLOGY	...	...	68	35	25	22
OTHER SECONDARY SUBJECTS	...	...	33	24	70	72
SECONDARY-SCHOOL TOTAL	288	298	3,328	2,908	2,993	2,976
UNGRADED						
SPECIAL EDUCATION	7	6	267	226	251	180
LIBRARIAN	...	...	52	40	1	2
GUIDANCE COUNSELOR	10	11	149	176	...	2
SCHOOL PSYCHOLOGIST	...	...	6	6	...	2
SCHOOL SOCIAL WORKER	...	...	...	...	5	3
SCHOOL NURSE	...	...	...	...	25	42
OTHER UNGRADED	...	...	152	210	132	...

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

TYPE OF PREPARATION COMPLETED BY STUDENT	WEST VIRGINIA		WISCONSIN		WYOMING	
	1972	1971	1972	1971	1972	1971
ELEMENTARY-SCHOOL TOTAL	1,204	1,142	3,473	3,604	105	153
REGULAR INSTRUCTION	1,091	1,026	3,312	3,431	105	141
SELECTED SUBJECTS(TOTAL)	113	116	161	173	...	12
ART	18	21	66	81	...	6
FOREIGN LANGUAGES	2	...	2	7	...	1
MUSIC	26	49	41	31	...	1
PHYSICAL & HEALTH EDUCATION	67	46	52	54	...	4
SECONDARY SCHOOL						
AGRICULTURE	11	11	66	66	15	8
ART	60	60	350	321	24	13
BUSINESS EDUCATION	129	130	153	157	22	16
DISTRIBUTIVE EDUCATION	...	...	50	26	6	...
ENGLISH LANGUAGE ARTS(TOTAL)	353	328	1,024	999	82	45
ENGLISH	278	254	807	799	71	40
JOURNALISM	11	15	9	8	...	...
SPEECH AND DRAMATIC ARTS	64	59	208	192	11	5
FOREIGN LANGUAGES(TOTAL)	72	60	317	291	19	12
FRENCH	34	28	106	126	7	4
GERMAN	1	1	58	43	4	2
LATIN	4	3	5	5	3	1
RUSSIAN	...	...	7	9	...	...
SPANISH	33	28	140	107	5	5
OTHER	...	...	1	1	...	...
HOME ECONOMICS	197	170	281	285	30	18
INDUSTRIAL ARTS	88	78	255	221	25	12
JUNIOR HIGH SCHOOL(GENERAL)	...	...	37	27	36	39
MATHEMATICS	108	114	323	313	30	22
MUSIC	106	108	273	232	24	10
PHYSICAL & HEALTH EDUCATION	511	472	634	544	46	47
NATURAL & PHYSICAL SCIENCES (TOTAL)	149	150	402	349	33	23
SUBJECT NOT SPECIFIED	...	...	21	12	22	1
GENERAL SCIENCE	...	...	71	69	1	...
BIOLOGY	89	96	239	206	10	16
CHEMISTRY	26	17	45	38	...	5
PHYSICS	34	37	26	24	...	1
SOCIAL STUDIES(TOTAL)	550	538	870	791	62	49
SUBJECT NOT SPECIFIED	550	538	166	181	54	49
HISTORY, GEOGRAPHY	...	...	518	466	2	...
ECONOMICS, SOCIOLOGY, PSYCHOLOGY	...	...	126	90	1	...
OTHER SOCIAL STUDIES	...	...	60	54	5	...
TRADE, INDUSTRY, TECHNOLOGY	...	...	30	26	...	6
OTHER SECONDARY SUBJECTS	...	...	53	34	...	...
SECONDARY-SCHOOL TOTAL	2,334	2,219	5,118	4,682	454	320
UNGRADED						
SPECIAL EDUCATION	53	38	513	425	16	22
LIBRARIAN	34	20	15	75	7	1
GUIDANCE COUNSELOR	100	93	71	35	13	28
SCHOOL PSYCHOLOGIST	...	...	24	13	...	1
SCHOOL SOCIAL WORKER	...	...	...	...	...	...
SCHOOL NURSE	...	...	...	...	...	...
OTHER UNGRADED	...	...	95	74	...	...

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